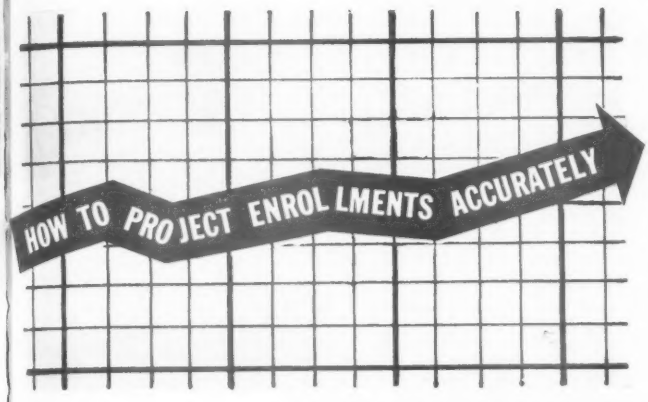
November 1959

SCHOOL MANAGEMENT

PRACTICAL SOLUTIONS TO SCHOOL MANAGEMENT PROBLEMS



K · 1 · 2 · 3 · K · 1 · 2 · 3

The Ungraded Primary

has your staff considered it?

K · 1 · 2 · 3 · K · 1 · 2 · 3

Flexible class-rooms for a flexible curriculum

ARE YOUR PARENT-TEACHER CONFERENCES WORTHWHILE?

SEE COMPLETE CONTENTS ON PAGE 3

The industry's highest quality at new low prices

This is the new Erickson one-fold Table

No other line of tables offers so much at such a low price

Look underneath: 1. Two steel channels under each bench and the table top, an Erickson exclusive 2. Rugged, simple understructure, no unsightly knobs or projections to bump or tear 3. Torsion and compression springing for one-step controlled folding and unfolding 4. Bonded high pressure NEMA plastic tops and benches with ¾" solid core material 5. Sanitary benches never touch table tops 6. Position locks—no teeter-totter when extended, no "surprise" openings when folded 7. Walk-in ends, nothing to hurdle 8. Pivot points in metal, can't pull out.

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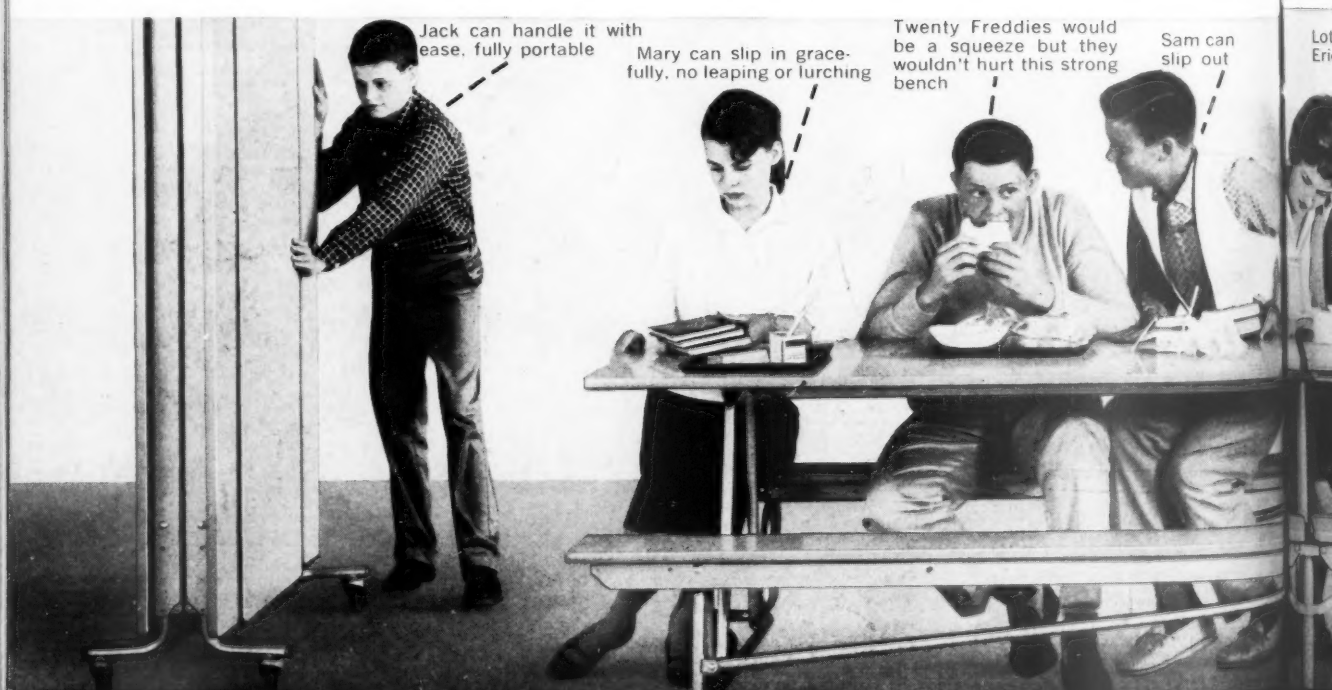
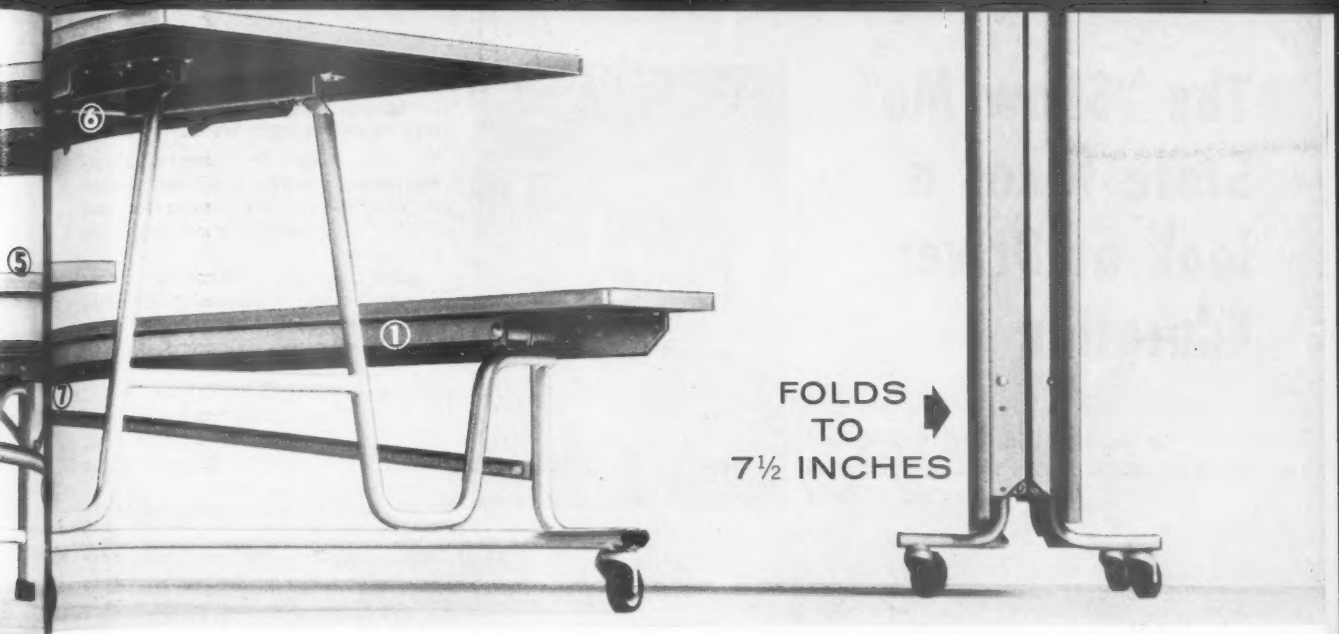

Jack can handle it with ease, fully portable
Mary can slip in gracefully, no leaping or lurching
Twenty Freddies would be a squeeze but they wouldn't hurt this strong bench
Sam can slip out



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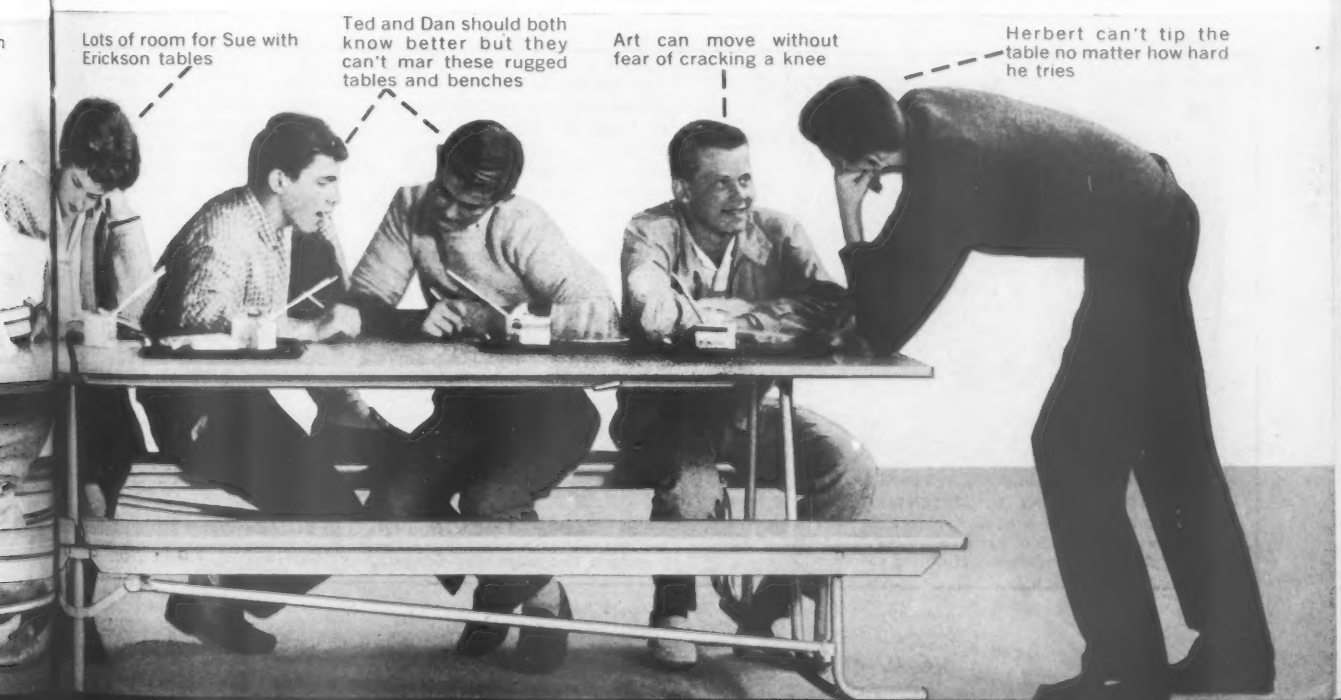

Lots of room for Sue with Erickson tables
Ted and Dan should both know better but they can't mar these rugged tables and benches
Art can move without fear of cracking a knee
Herbert can't tip the table no matter how hard he tries

The "Show Me" State takes a look at Driver Education

By Mr. Homer B. Taylor, Chairman
Citizens Fact Finding Committee
University City, Missouri

In 1958 the Board of Education of University City, Missouri appointed a Citizens' Fact Finding Committee to ascertain all possible facts on Driver Education in the community and submit recommendations to the school board.

The Committee based their investigations on three questions:

❶ IS THERE A NEED FOR DRIVER EDUCATION?

An extensive study was made of Driver Education reports from universities and associations throughout the country. Without exception, wherever exact figures were cited, these reports showed that trained high school students compiled much better driving records than did their untrained contemporaries. For example, in Ohio the figure was 50% fewer accidents for students with driver training; in Wisconsin, 75% fewer accidents and 50% fewer arrests; in Delaware, 25% fewer warnings, 30% fewer arrests and 40% fewer accidents. The value of driver education seemed quite apparent.

❷ WHOSE RESPONSIBILITY IS DRIVER EDUCATION AND IS THERE AN AGENCY OTHER THAN THE SCHOOLS WHICH MIGHT DO A BETTER JOB?

Again the Committee analyzed many reports and talked to many people—primarily commercial driving schools and parents. Our findings can be well expressed by summarizing the statements of one AAA approved driving school executive:

"If a commercial school gave the student as much classroom instruction as is given in the high school, the cost would be prohibitive." He also pointed out the classroom work is *essential to teaching proper driving attitudes* – an area which is perhaps even more important than the simple mechanical skills. Nor did he feel that parents could do an adequate teaching job. Most parents, he observed, are not properly qualified to teach driving and all too often simply "teach their children their own bad habits."

❸ IF DRIVER EDUCATION IS THE JOB OF SCHOOLS, THEN WHAT ADMINISTRATIVE PROBLEMS MUST WE CONSIDER?

The Missouri State Department of Education recommends a driver education course requiring 60 hours of classroom work and 6 hours of behind-the-wheel instruction per student.

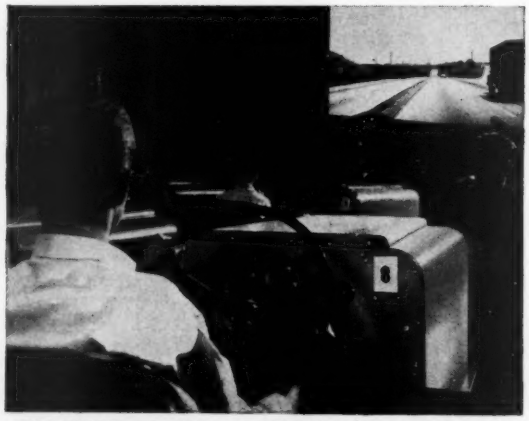
After much study we concluded that driver education in University City could be accomplished most effectively by using Ætna Drivotrainers. This proven teaching aid would permit us to instruct all of our students with 5 teachers, whereas 7 would be required with dual control cars alone. Savings would amount to $9.00 per pupil, which would amortize the cost of the Drivotrainers in two years.

We could see other advantages in the Drivotrainer program, too. Emergency driving situations which could not be duplicated on the road are created on film in the classroom – one of the many ways in which the Drivotrainer helps to develop superior skills, attitudes and judgment.

After studying the subject from every angle for six months, the committee was unanimous in making these recommendations to the school board:

1) *Driver education is necessary for boys and girls approaching the driving age.*
2) *Driver education should be taught in the University City Senior High School.*
3) *The driver education program should be expanded to give each student the state recommended course* and could be done most effectively and economically with the purchase of a 15-place Drivotrainer.

We are pleased to say that the Board of Education adopted our recommendations. It is also gratifying to note that a professional survey among a sample group of 1000 University City residents has indicated overwhelming approval by parents of the driver education program. The exact figure – 81% in favor!



ONE TEACHER TRAINS 15 STUDENTS AT A TIME in this modern Drivotrainer classroom. Each "car" is equipped with the instruments and controls of a real automobile. The system employs motion pictures to simulate actual driving conditions.

Development of the Drivotrainer was financed by the Ætna Casualty and Surety Company as a contribution to education, and highway safety. Ætna Casualty has no financial interest in the sale of Drivotrainer equipment but continues its public service support of the program through production of Drivotrainer films and other teaching aids, assisting in teacher training, and supplying an educational liaison service to Drivotrainer users.

Drivotrainer equipment is manufactured, sold and serviced by the Automatic Voting Machine Division of the Rockwell Manufacturing Company, Jamestown, New York.

For further data on the Ætna Drivotrainer, please write to:

INFORMATION AND EDUCATION DEPT.

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Vol. 3 No. 11

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22 West Putnam Ave., Greenwich, Conn.

Volume 3 Number 11

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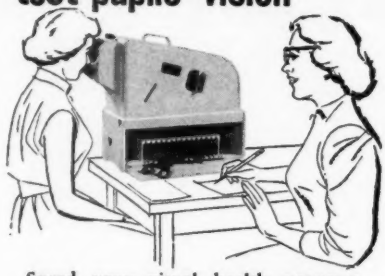

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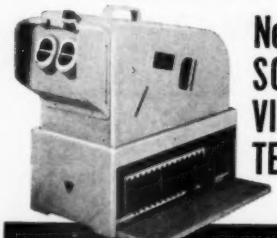

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SM LETTERS

Myths and facts

SIR: I am puzzled by what I read in your magazine regarding enrollments in math, language and science in the high schools (*Myths and facts to answer the school-baiters, SM Aug. '59, pg. 16*). I don't understand the terms of comparison. For example, the article states: "*Proof:* In the last 50 years, while our population was growing less than 100%, enrollments in secondary science courses increased 600%."

Does "our population" refer to the total population of our country, or to high school population? It makes an enormous difference.

In the field of modern foreign languages, for instance, 34% of the high school population was studying a foreign language early in this century; by the 1950's the number had dropped to 14%—less than half. I daresay a nose count would show that foreign language enrollment has increased, in the absolute sense. Likewise, the enrollments in science and mathematics. But if you neglect to add that the high school population has multiplied many times in the last 50 years, aren't you misleading your readers? And what about the percentage increase in "life adjustment" courses over the last 50 years?

Please tell me just what is meant by your figures concerned with "Myth 1." I find it hard to reconcile them with Office of Education statistics on the spectacular decline, since 1920, of the percentage of high school students enrolled in foreign languages.

ELTON HOCKING
DEPARTMENT OF MODERN LANGUAGES
PURDUE UNIVERSITY
LAFAYETTE, IND.

■ As surmised, the "population" to which SM referred was the population of the whole United States. Actual high school enrollment in the last 70 years has jumped some 3200%. This does not negate the fact that a larger number of students are taking language and science courses now than have ever done so in the past.

Certainly there are many more students taking life adjustment courses. There are also many more students in high school now who cannot undertake courses that were offered to the elite who were in high school 50 years ago. The important thing to remember is that there is an actual *increase* in the number of students in the United States who are getting an education in science, languages and mathematics.

There is no question that it would be advantageous to have many more students taking foreign languages, science and mathematics. On the other hand, it should be noted that a great many more students are taking those courses than ever had before. ED.

SIR: Your article "Myths and facts to answer the school-baiters," (*SM, Aug. '59*), was very interesting and contained information I would like to use in discussions with parents in my school district. I find, however, two errors in the percentages stated in this article. In the last two lines of Myth 2, the population percentage apparently should be 130 instead of 50 and the attendance percentage 3,100 instead of 1,500.

Will you please review the figures used in this article and advise me of the changes that should be made.

L. G. CLIFFORD
TREASURER, PUBLIC SCHOOLS
FARMINGTON, MICH.

Myth: Editors are mathematicians.
Proof: SM's figures were wrong.
Fact: See the correct figures presented by Mr. Clifford. ED.

Variety of food

SIR: I enjoyed your article, "Questions to ask your cafeteria manager" (*SM, March '59*) by Richard Flambert.

I would like to differ with the part of this article that pertains to menu planning. The conclusion is made that we need to select only 10 or 12 well-liked dishes and by varying them we could go through the whole year. We need to have the children experience new foods and new dishes. Only through experience will they learn to like a greater variety of foods.

I would also like to add some reasons for selling weekly tickets to children rather than having them pay for the meals with cash. We find that it helps us to plan the right amount of food as we know pretty much the number that will be eating every day of the week. It also means that we do not need to have each day's meal cost the same but only need to have the cost for the week be comparable with other weeks. These two advantages are very important for economical operation of our cafeteria.

CHESTER W. CURTIS
SUPERVISING PRINCIPAL
MARION, N. Y.

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Gross Weight Rating, Max.	16,000 lb.	21,000 lb.	21,000 lb.	21,000 lb.	23,000 lb.	23,000 lb.
Pupil Capacity	30 to 36	42 to 48	48 to 54	54 to 60	54 to 60	60 to 66
Front Suspension.....Capacity	5,000 lb.	5,500 lb.	5,500 lb.	5,500 lb.	5,500 lb.	5,500 lb.
Rear Axle (Standard).....Cap.	13,000 lb.	13,000 lb.	13,000 lb.	15,000 lb.	15,000 lb.	15,000 lb.
(Optional).....Cap.	—	15,000 lb.	15,000 lb.	—	16,000 lb.	16,000 lb.
Service Brakes— Vacuum Actuated Total Lining Area	381 sq. in.	381 sq. in.	381 sq. in.	385 sq. in.	385 sq. in.	385 sq. in.
Engine (Standard).....Type	6-cyl.	6-cyl.	6-cyl.	6-cyl.	V8	V8
Displacement	235.5 cu. in.	261 cu. in.	261 cu. in.	261 cu. in.	348 cu. in.	348 cu. in.
Gross Horsepower	135	150	150	150	185	185
Engine (Optional).....Type	V8	V8	V8	V8	—	—
Displacement	283 cu. in.	283 cu. in.	283 cu. in.	283 cu. in.	—	—
Gross Horsepower	160	160	160	160	—	—
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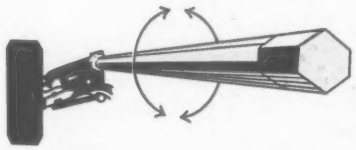

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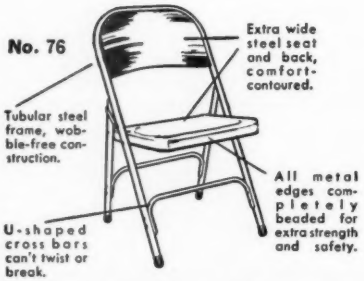
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SM | WHERE TO GET HELP

A guide to useful information

CONSTRUCTION

Elementary school buildings. Are you building an elementary school, planning one or thinking about doing so in the future? If so you *must* purchase this new NEA publication. Every important factor in elementary school planning and building is discussed at length by more than two dozen authorities in this informative volume of expert opinion. In his preface, Robert E. Willis, president of the National School Boards Association, makes a plea for the closer involvement of principals, teachers and community sources in school planning. The body of the book is taken up with thoughtful recommendations on every aspect of elementary school design, construction and use. Among these suggestions are the following: An elementary school should be one story high with 40 to 50 feet of classroom space for each pupil. It should contain planned space for specialized services, faculty lounges and work rooms, library, resource center, gym and auditorium. Ideally, the site should be at least five acres with an additional acre allowed for each 100 pupils enrolled. Optimum size—stated with reservations—is given as ranging from 400 to 800 pupils.

ELEMENTARY SCHOOL BUILDINGS . . . DESIGN FOR LEARNING. *Department of Elementary School Principals, National Education Association, 1201 16 St., N.W., Washington 6, D. C. 198 pages. $4.*

EVALUATION

Judging schools. This pamphlet, a joint statement of the American Association of School Administrators and the National School Boards Association, presents 12 criteria of excellence that can be used by school boards in evaluating their schools. Effective evaluation, according to the pamphlet, demands: stated objectives, intimate and comprehensive knowledge of the community, continuous implementation, a comprehensive view, cooperative effort on the part of many people, identification of strengths as well as weaknesses, the use of many measuring instruments, a knowledge of children and youth, self-examination by the school board, appraisal of existing practices affecting the staff, the belief that what people think makes a difference and resultant self-improvement.

JUDGING SCHOOLS WITH WISDOM. *National School Boards Association, 1940 Sheridan Road, Evanston, Ill. 50¢.*

GUIDANCE

Career. A revised edition of a brochure directed to science and engineering students as well as vocational guidance counselors, this booklet, published by the Recorder-Controller section of the Scientific Apparatus Makers Assoc., attempts to answer questions about the instrument and control industry. Drawing on the results of a survey conducted among industry members, the booklet describes present and expected opportunities for engineers in this field.

YOUR CAREER WITH THE INSTRUMENT AND CONTROL INDUSTRY. *Available from Horace M. Byrnes, executive secretary, Recorder-Controller section, Scientific Apparatus Makers Assoc., 370 Lexington Ave., New York City 17. Free.*

SCHEDULING

Double sessions. Reporting a study of what happened when Arlington High School, Arlington, Ill., ran two shifts a day for a year, this pamphlet recounts the effects of double sessions on the school's education program. The double shifts resulted in: a 24% reduction in students' time in class, a great reduction in study hall time, a striking reduction in use of library resources, a 27% decrease in music enrollment, less student time in school before and after classes and a slight decline in student grades during the year. The net effect: "undesirable." In addition to reporting reactions of students, teachers and the community to the emergency situation, the pamphlet makes concrete suggestions for minimizing ill effects when double sessions become unavoidable (*see article, page 15*).

WHAT PRICE DOUBLE SESSIONS? *Published by National School Boards Association, Inc., 1940 Sheridan Rd., Evanston, Ill. 16 pages. 25¢.*

New SCHOOL SYSTEM BLANKET BONDS could have softened these blows

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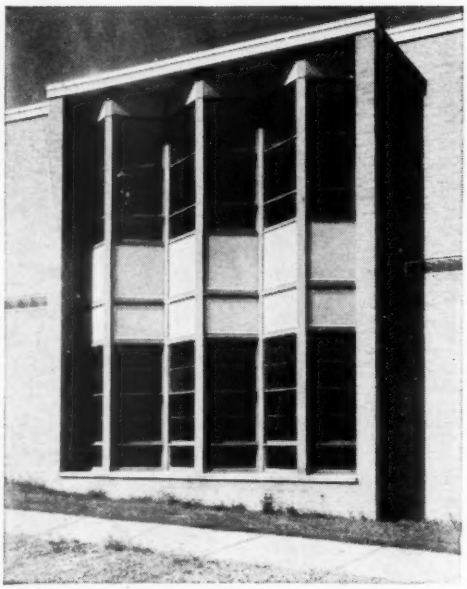

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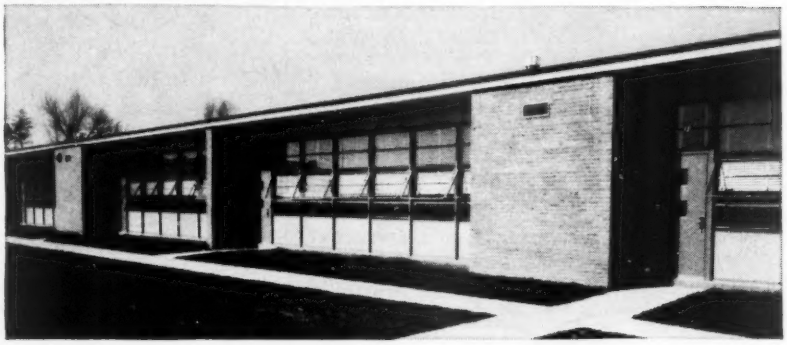

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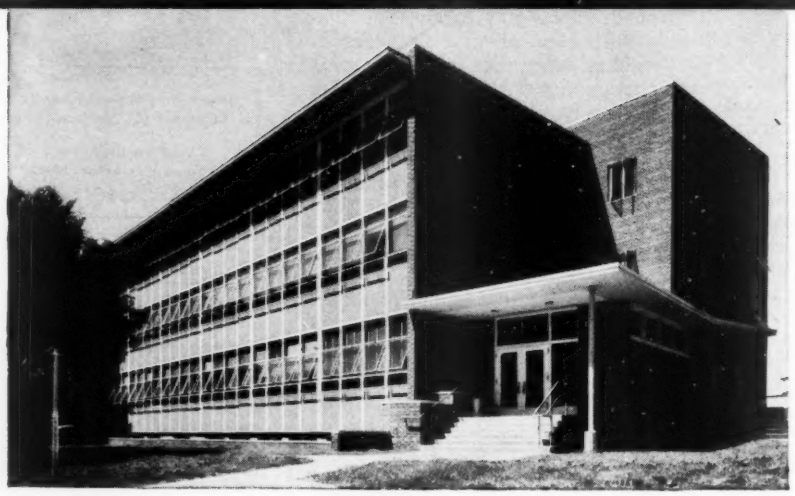

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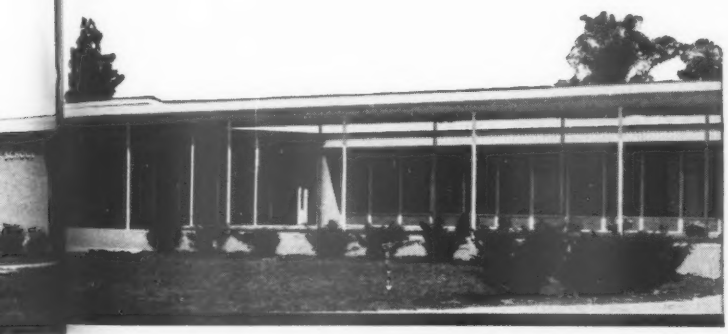

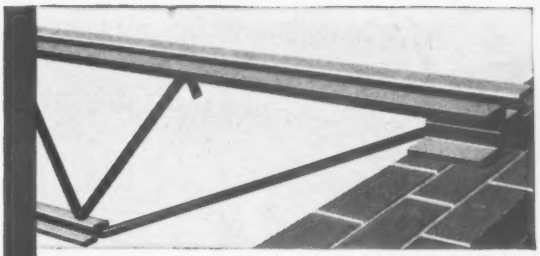

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THINGS YOUR PUBLIC OUGHT TO KNOW

Basic information that schoolmen can use as a part of a community education program

What price double sessions?

Reporting a study of what happened when a high school ran two shifts a day for one year.

Editor's note: The pamphlet * from which this article is extracted is based upon a doctoral dissertation, completed by Eugene Oliver at Northwestern University in 1957, on the subject of double sessions. Dr. Oliver's investigation, entitled "A Critical Study of a Suburban High School's Initial Experience with Overlapping Sessions," provides a factual account of what happened when Arlington High School, of Arlington Heights, Ill., found double sessions unavoidable while awaiting the completion of additional facilities to handle a bulging enrollment.

The National School Boards Association prepared the pamphlet in the belief that school boards, school administrators and school communities facing the dilemma of double sessions will gain an insight from it as to probable outcomes of their own use of two-shift scheduling.

**WHAT PRICE DOUBLE SESSIONS, reporting a study of what happened when a high school ran two shifts a day for one year. Published by the National School Boards Assoc. Additional copies may be ordered from the NSBA, 1940 Sheridan Road, Evanston, Ill. Single copies 25¢. Quantity orders: 10 to 49 copies, 10% discount; 50 to 99 copies, 15%; 100 to 299 copies, 20%; 300 to 499 copies, 25%; 500 or more copies, 30%. Postage charged on bulk orders of 10 or more.*

■ ■ ■ The Arlington High School building was designed to accommodate 1,100 students. About the time the building reached capacity enrollment, the school board, knowing that more pupils were on the way, submitted a referendum to the taxpayers to provide additional facilities. At first the proposal was turned down; and by the time it was finally accepted, conditions had reached the point where a year of double sessions was unavoidable before the new space could be made ready.

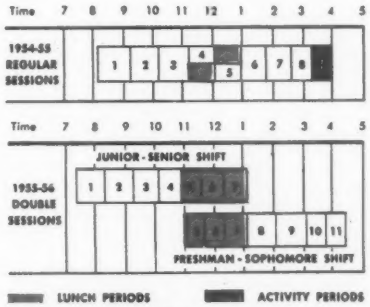
That year, 1,739 students were enrolled. The one obvious advantage of the double-session plan was that it permitted schooling to be provided for all these students, which would have been impossible under the normal single-session schedule.

But what effect did double sessions have on the educational program, on extra-curricular activities, on costs, on discipline, attendance, and morale? Did the students like the double-session schedule? Did parents like it? Was there any community reaction? Finally, how did the teachers and administrative staff react to the plan?

Eugene Oliver designed his doctoral study to secure reliable answers to these and other questions. He used approved questionnaire and interview methods of research. He checked the Arlington results with reports to an inquiry he directed to a dozen high schools in surrounding states, which were also in their first year of double sessions. All were found to be in essential agreement.

The schedule

A variety of schedules have been devised for high schools on double sessions. The type selected for Arlington was one of the most typical. Juniors and seniors attended classes from 7:25 a.m. until 1:10 p.m., while the freshmen and sophomores were in school from 11:00 a.m. until 4:45 p. m. Three lunch periods were scheduled during the "overlap" time when all students were in the building, so that one-third of the students were in the cafeteria, and classroom space was available for the remaining two-thirds during this time. Of the 12 comparable schools studied during the same year, six had schedules with an "overlap" period, while six had schedules with a complete break between the attendance periods.


Time 7 8 9 10 11 12 1 2 3 4 5
1954-55 REGULAR SESSIONS
Time 7 8 9 10 11 12 1 2 3 4 5
JUNIOR - SENIOR SHIFT
1955-56 DOUBLE SESSIONS
FRESHMAN - SOPHOMORE SHIFT
LUNCH PERIODS
ACTIVITY PERIODS

Double sessions meant shorter classes, longer day in Arlington.

The length of the teacher's day at Arlington High School was not changed by double sessions—it remained eight hours. The student's day, however, was reduced from seven hours to five hours and 45 minutes. Instead of a schedule of five 55-minute periods, two 40-minute periods, and a 30-minute lunch period, the students were given a schedule of two 55-minute periods, four 40-minute periods, and a 40-minute lunch.

Effect on program

The Arlington High School study revealed the following facts:

1. There was a 24% reduction in the time students spent in class.

text continued on following page

2. Study hall time was greatly reduced.

3. There was a striking reduction in the use of library resources.

4. There was a 27% decrease of enrollment in music.

5. Students spent less time in school before and after class periods. Extra-curricular activities were reduced more than 50%.

6. In general, student grades declined slightly during the year of double sessions.

Student reactions

The reasons given by a majority of the upperclassmen for *preferring* the double-session schedule, in order of importance, were:

1. Getting out of school early.

2. Being able to hold a part-time job in the afternoon.

3. Having more room in the halls in the morning hours.

4. Having long lunch periods.

5. Having more time to do homework at home.

6. Having shorter periods.

7. Wasting less time during the school day.

On the other hand, objections by upperclassmen to the double sessions were based largely on the difficulties presented by the schedule to achievement in school work, including less individual attention by the teachers.

The reasons given by a large majority of the underclassmen for not preferring the double-session schedule, in order of importance, were:

1. Getting out of school late.

2. Having less study time in school.

3. Having fewer extra-curricular activities.

4. Being unable to stay after school for help from teachers or for make-up work.

5. Crowding when all students were in the building at the same time.

6. Eating lunch soon after getting to school.

7. Being with the juniors and seniors less.

On the other hand, the things underclassmen liked about the double-session schedule were the long lunch periods, the "elbow room" in the corridors, and having more time in the morning for homework, recreation, shopping and other activities.

As might be expected, the students who participated in no extra-curricular activities during the year of double sessions expressed a greater liking for the schedule than did those who had previously participated in the extra-curricular program.

Family reaction

Only one parent in four believed that the achievement of his own son or daughter had been adversely affected. While the majority felt that double sessions had not affected school achievement, only two parents indicated that they thought double sessions had improved school achievement . . .

Disadvantages of the schedule change listed by a number of parents included the following:

1. Upsets family routine of chores, meals, rising and retiring.

2. Leaves too little time for social and personal activities for students on the second shift.

3. When combined with other activities, makes the day too long and the student too tired.

4. Creates an awkwardness in the division between home and school activities.

5. Students do not use extra free time as constructively as they should.

6. Students arrive home too late from the second shift.

On the other hand, an advantage of double sessions seen by a number of parents was the added time for a part-time job, help around the home, or other activities. . . .

The largest concentration of negative comments by parents relative to double sessions occurred in the areas of reduced school study time and lack of individual help for their children . . . In other areas—student achievement, student attitude toward school, the time schedule, and the reduction in student activities—parents were about evenly divided between those who felt that double sessions produced ill effects and those who felt that they produced either no effect or favorable effects.

As a group, the 79 teachers at Arlington High School were more unhappy with their experience during the year of double sessions than any group included in the study. Mr. Oliver interviewed each one personally and noted his or her responses in detail.

Seventy-five percent of the teachers regarded the effect of double sessions on student achievement as undesirable. The chief reason for this opinion was the lack of opportunity for individual attention. One teacher commented, "I can't have students in after school hours for make-up work or help with questions. Since I see the students only during class, I must have the essential conferences then." Another said, "There is no time to see students unless they come before school, and many can't; I try to have students in early, but the results are poor. I see four or five students per week this year, compared with 35 or 40 per week normally."

The teachers also pointed out that a number of activities related to curriculum improvement were curtailed. Separate faculty meetings for the two shifts meant less coordination; department meetings were difficult to schedule and were reduced in number . . . Curriculum improvement programs planned for the year were not completed, and little opportunity existed for experimentation.

When asked to list the most significant advantage of double sessions, 20% of the teachers could think of no advantage at all. Of the remaining number, the largest single group, 25% regarded the division of freshmen and sophomores from the juniors and seniors for the greater part of the school day as the most significant advantage.

What about costs?

The per capita pupil costs for the year of double sessions were compared with those of the preceding year. These costs were based on expenditures from the educational fund, which included instruction, teaching materials, building operation and maintenance, administrative expense, classroom equipment, and auxiliary services (transportation, school health program, and school lunch program). Expenditures from the building fund were not included. The per capita costs rose from $406.52 during the year preceding double sessions to $437.43—a 7% increase.

It would be unwise to conclude, however, that the increase was a result of the double sessions. Factors more likely associated with the rising cost per pupil were the rapidly increasing enrollment, the increasing wage scale for all school employees, and the increasing costs of all school supplies. In one specific area—transportation—the costs were reduced. The per capita cost has continued to rise in Arlington following the return to a single-session schedule.

It appears that double sessions are not a means of lowering the costs of the current expenses of public schools. While fuller use is made of school facilities for classroom work, their use for extra-curricular activities is correspondingly curtailed.

It is important to have in mind that this study attempted to estimate the effects of *one year* of double sessions. Pupils, teachers and community are less affected when they respond to a temporary emergency situation, which is soon to be remedied. To have conditions continued indefinitely could be disastrous to learning and morale.

When double sessions are resorted to, children receive less education and a poorer quality of education. They pay the highest price—a handicap at the start of life. But the community pays, too, and in the long run the nation pays because its human resources have not been fully developed. **End**

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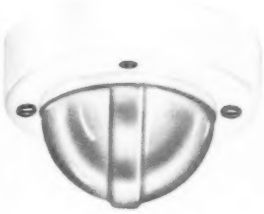

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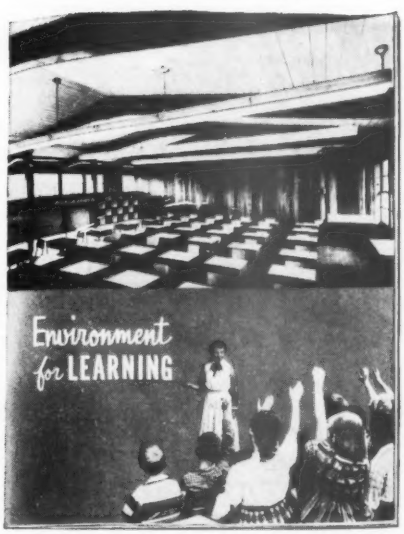

This informative new booklet, "*Environment for Learning,*" contains comprehensive data on the use of wood in schools. For your free copy (or copies), write to NLMA at the address shown.

(Circle number 741 for more information)

SM

FOOD CLINIC

Richard Flambert answers your feeding questions

QUESTION: **In one of your articles you commented on the importance of color in influencing children's appetites. Could you be more specific?**

ANSWER: When we were making a study of the food service program of the Los Angeles City Schools, we had an excellent opportunity to study the kinds of food that were most enjoyed by students. One of the most striking characteristics of school feeding is the fact that the color of the plate on which the food is served and the color of the food itself has an astonishing effect on the appetite of the child. This, of course, is subconscious; at no time does the child realize that certain colors are producing greater appetite.

Among the food colors which stimulate eating are brown, peach, red and green. The appealing plate or tray colors are peach and yellow. These same two colors, with the addition of brown, are thought to be best for walls.

Several years ago we designed a large central kitchen, and the walls were peach and yellow. Time and motion studies revealed that there was less fatigue and far greater productivity with these colors than those of the central kitchen which had been supplanted.

QUESTION: **How can we increase participation in our elementary school cafeterias?**

ANSWER: Assuming that the reason for low participation is not caused by a bad design and layout which might cause slow service, or from an antiquated and worn out food service area, we think this problem might be solved by:

Sending menus home with the children.

Giving the children notes or bulletins regarding the lunch program to take home.

Seeking newspaper publicity, either through write-ups, pictures and tours, or by placing the week's menu in the newspapers.

Discussing the menu and food in classrooms.

Giving talks by school lunch supervisor or manager or school nurses to parent groups regarding the nutritional value of the school lunch.

Obtaining more active interest on the part of the faculty.

Giving monthly birthday parties for children in the cafeteria.

Inviting parents to have lunch with the children once every semester.

Urging parents of all new pupils to have their children eat in the cafeteria.

Staggering eating periods so that all the children do not get in line at the same time.

Having longer lunch periods.

Encouraging art classes to make attractive food posters to place on bulletin boards.

Improving the quality of the cooking and baking.

Questions were submitted by readers of School Management. Names withheld on request. Send your feeding questions to "Food Clinic" in care of this magazine.

About the author. Richard Flambert is a partner in the firm of Flambert and Flambert, San Francisco and St. Louis, food service consultants and engineers specializing in schools and institutions. He is president of the International Society of Food Service Consultants.

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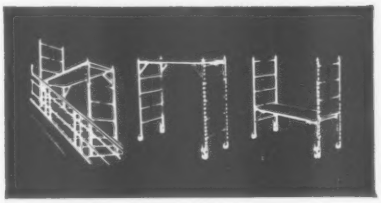

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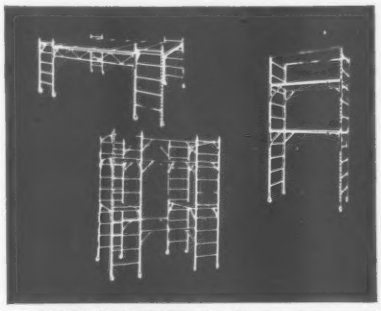

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(Circle number 707 for more information)

Teachable . . .

FOR THE PURSUIT OF SCHOLASTIC *Excellence:* Nesbitt *Comfort-Conditioned Classrooms*

Earning its way through LEARNING

In the *pursuit of scholastic excellence,* comfort conditioned classrooms offer a basic facility for increasing learning efficiency. Nesbitt, with more than 40 years of pioneering in the field of thermal comfort—and always an exponent of excellence in its products—offers the Year-Round Syncretizer air conditioning unit to provide the thermal environment most conducive to learning throughout all seasons. With its exclusive precooling element for unsurpassed humidity control, *plus* economies in installation and operation, the Nesbitt Year-Round Syncretizer brings administrators one of the keys to *more learning per school dollar.*

...because she's comfortable

in this controlled classroom climate

Trying to keep alert and attentive in a stuffy, overheated classroom, or to work in a chilly or drafty one distracts the student and lowers learning efficiency. The best teaching and the finest facilities are most effective in comfort conditioned classrooms—heated, ventilated, and cooled by competent *units* serving *individual rooms* under *fully automatic control.*

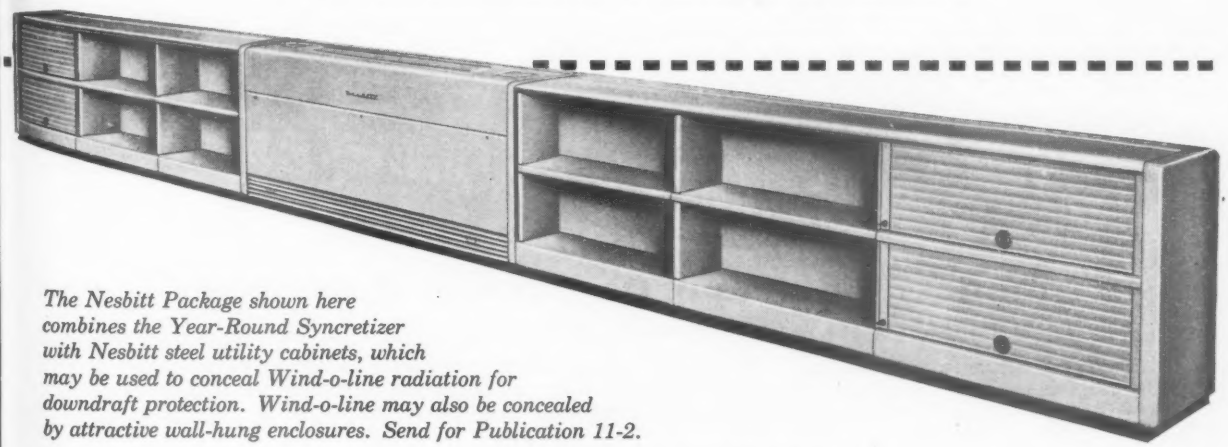
The chances are you already know this, because some 200,000 Nesbitt Syncretizers are now serving in classrooms of the United States and Canada. In each room the unit functions automatically, with consideration to the outside weather, room exposure, class census, and activity. It supplies heat when needed, continuous ventilation, and fresh-air cooling under precise control. Drafts, stuffiness, odors, outside noises and dirt are eliminated. The filtered, tempered, and gently circulated air creates—throughout the usual school year—the thermal environment most conducive to learning.

What you may not know is that Nesbitt also offers the *Year-Round* Syncretizer which provides all these comfort features *plus mechanical cooling and dehumidifying* for warm weather operation. If your school is in an area where mechanical cooling is sometimes needed, or if summer schedules loom as a possibility, it will pay you to investigate the Nesbitt *Year-Round*, the economical classroom air conditioner.

Nesbitt Year-Round Syncretizer

Made and sold by John J. Nesbitt, Inc., Philadelphia 36, Pa.

Sold also by American-Standard Industrial Division, and American Standard Products (Canada) Ltd.



The Nesbitt Package shown here combines the Year-Round Syncretizer with Nesbitt steel utility cabinets, which may be used to conceal Wind-o-line radiation for downdraft protection. Wind-o-line may also be concealed by attractive wall-hung enclosures. Send for Publication 11-2.

(Circle number 742 for more information)

HOW CHILDREN RESPOND TO SOFT DRINKS

in school food and refreshment facilities

When bottled soft drinks are available within school limits, youngsters are encouraged to stay on school property at lunchtime. In addition, soft drinks provide attraction . . . and a preferred refreshment keynote for after-school dances and other events. Social activity is more readily supervised and promoted.

To these social values of soft drinks, must be added two other important factors:

1. DIETARY VALUE: Soft drinks are accepted in dietetic planning as an "accessory food." Like relishes, they accent the diet healthfully.

Soft drinks provide 100 calories of food energy per 8 ounces in easily assimilable form—a helpful contribution during the school day to pupil alertness and interest.

2. WHOLESOMENESS: As you know, the body loses 2½ quarts of fluid each day. Soft drinks help restore body fluid balance. Carbonation adds zest and palatability. In addition, soft drinks aid digestion and stimulate appetite. Because they are liquid, soft drinks pass quickly through the mouth, with virtually no involvement in oral conditions related to dental problems. Recent dental research reaffirms this thinking.

These are some of the reasons why soft drinks have a place in the food and refreshment facilities of our schools where bottled beverages are easy to store, handle and serve economically. If the subject of soft drinks in schools comes before your Board, talk it over with your local bottler. He's a tax-paying businessman of the community, dealing in products which contribute to the local economy in the same way as other food products served on school premises. He's entitled to a fair hearing.

American Bottlers of Carbonated Beverages

Washington 6, D.C.

National Association of the Bottled Soft Drink Industry—a non-profit association of manufacturers of bottled soft drinks, with members in every state. Its purposes: to promote better understanding of the industry and its products, and to improve production and distribution methods through education and research.

(Circle number 703 for more information)

YOURS FOR THE ASKING

These booklets—promotional and otherwise—contain ideas of possible value to you and your schools. Each item listed will be sent to you without cost.

FOR FREE COPIES, USE READER SERVICE CARD

Audio-visual. Visual Review, a new tabloid designed to aid teachers in selecting new and timely filmstrip material, has been issued by the Society for Visual Education, Inc. Scheduled for quarterly distribution during 1959-60, the review will keep readers informed about new developments in filmstrip and slide presentation by describing new materials available and presenting methods for improving instruction at the classroom level.

For a free copy of this review, circle number 873 on the Reader Service Card.

Basketball. Anyone interested in the basketball theories of some of the winningest coaches in America will want to obtain a copy of the 1959-60 "Seal-O-San Basketball Coaches Digest" published by Huntington Laboratories. The 64-page magazine is complete with pictures and easy-to-follow diagrams.

For a free copy of this magazine, circle number 900 on the Reader Service Card.

Cafeteria flooring. The various types of floor coverings for maintenance of a clean, attractive, comfortable cafeteria and kitchen area are described in a brochure produced by the D. W. Moor Co. It suggests means of providing safety underfoot as well as comfort, reduction in breakage of china and glassware and sanitary floor coverings. A chart is provided for the selection of proper types of floor matting and floor covering materials for every cafeteria and kitchen circumstance.

For a free copy of this brochure, circle number 901 on the Reader Service Card.

Door closer. Information about a unique door-installed closer is contained in a four-page folder available from the Oscar C. Rixson Co. Called Multicheck, the new unit has a straight one-piece arm which functions on a traveling spindle to relieve leverage stress on butts and door frame. The device may be mounted on either push or pull interior doors, is available in either mortised or surface models and can be mounted on left- or right-hand doors.

For a free copy of this folder, circle number 896 on the Reader Service Card.

Duplicating tips. Hundreds of applications are given in a booklet published by F. G. Ludwig, Inc., "115 Ways a Photocopy Machine Can Save You Money." Suggestions are made under a variety of headings, though many uses given—under general management personnel and purchasing headings—apply equally well to school office situations. Some uses presented for schools include: registrations and transcripts, diplomas and certificates, teaching materials, library research, visual aid transparencies, manuscripts and athletic records.

For a free copy of this booklet, circle number 902 on the Reader Service Card.

Fire protection. The most modern methods of fire protecting steel are discussed in a 44-page booklet produced by the American Institute of Steel Construction. Included in the booklet are sections on modern building codes with reference to general acceptance of performance tests; the characteristics of safe, dependable fireproofing materials; the concept of "light-frame" fire-resistant steel construction; and a reference table showing more than 150 fire-resistant constructions and their fire-resistance ratings.

For a free copy of this booklet, circle number 898 on the Reader Service Card.

Floor design. More than 40 floor design possibilities are shown in a colorful, 16-page handbook released by Azrock Floor Products. The handbook describes how to plan a floor for any size or type of room and gives information on the effective use of color and design when working with floor tile. Also included are color charts of five Vina-Lux tile styles.

For a free copy of this handbook, circle number 880 on the Reader Service Card.

Incinerators. Data on field-erected and portable incinerators for handling all kinds of waste is presented in Catalog 63 of the Plibrico Co. Also available is a catalog sheet illustrating and describing three recently-introduced portable incinerators with capacities of 75, 100 and 150 pounds per hour.

For free copies of this data, circle number 897 on the Reader Service Card.

Kitchen equipment. A complete line of modern kitchen machines is described and illustrated in a colorful broadside, just released. Illustrated are dishwashers, peelers, mixers, choppers, saws, slicers and steak machines with informative descriptions of each. A total of 28 product illustrations highlight outstanding features of the machines that help cut costs and time. Specifications and capacities are also listed for each model.

For a free copy of this broadside, circle number 892 on the Reader Service Card.

Metal furniture. A six-page brochure presents the complete 1959 line of metal furniture from the Howell Co. It contains over 50 illustrations.

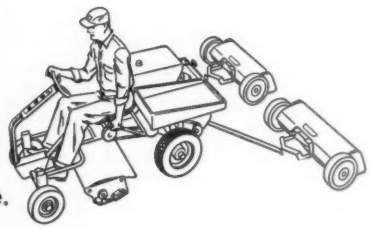
For a free copy of this brochure, circle number 853 on the Reader Service Card.

Metal lath. Aids for writing metal lath and plaster specifications are provided by the Metal Lath Mfrs. Assoc. in technical bulletin supplements 14-1 and 14-2. These supplements are filled

continued on page 103

Cuts a real swath!

SIX FOOT TWO! That's a man-sized swath this 1960 Toro Sportsman* clips off with 2 gang units attached. Saves man-hours for you.



And this Toro's no toy. Under the rugged frame is a husky 30-inch reel unit with 6 tough blades on an oversize-diameter reel. Add two 25-inch gangs and you've got the full 74-inch swath for top efficiency.

There's power to spare in the mighty 5½ hp, 4 cycle engine, too! Breezes up hills like they weren't even there.

Still, you haven't heard the best news: the Sportsman takes a 42-inch snow plow blade, or a 30-inch lawn roller, or a 2 x 5 foot dump cart—or even a 32-inch triple-blade rotary mower unit with the exclusive Toro "Wind Tunnel" design. This Sportsman can save you time and money year around!

Like a demonstration on your own grounds? Simply call or write your nearby Toro distributor. He's listed in the classified section of the phone book under "Lawn Mowers."

**A registered trademark of Toro Mfg. Corp.*

TORO

TORO MANUFACTURING CORPORATION
3013 SNELLING AVE., MINNEAPOLIS 6, MINN.

(Circle number 768 for more information)

SM NEWS OF THE SCHOOLS

A digest of current happenings in public education

State laws violated by midwest teachers

Frances E. Willard Day passed peacefully in Kansas and Missouri this year, despite the fact that several thousand school teachers violated this law.

A statute on the books of each state makes it mandatory that every public school set aside one-quarter of the school day for instruction relative to "the history and benefit of the prohibition of the manufacture and sale of intoxicating liquors."

Miss Willard was a leader in the Prohibitionist movement.

In only one school was the law even partially observed. Miss Willard's life was discussed in Kansas City, Mo.—in the Frances E. Willard School.

"It seemed that it was the least we could do," said Principal Thelma Reed.

Bible reading ruled out of public schools

A three-judge federal court sitting in Philadelphia has ruled unconstitutional a Pennsylvania law which mandated that every public school teacher must start each day by reading 10 verses from the Bible. They were to be read without comment.

The ruling will be appealed to the U.S. Supreme Court.

The decision came in answer to a suit filed against the Abington, Pa., Township district and four school directors. The law, enacted in 1949, requires the dismissal of any teacher who refuses to read or have read the required 10 Bible verses.

The Court in rejecting the law held that it violated the First and 14th Amendments to the Constitution. In its decision the Court said: "The daily reading of the Bible, buttressed with the authority of the State and, more importantly to the children, backed with the authority of their teachers, can hardly do less than inculcate or promote the inculcation of various religious doctrines in childish minds."

The court held that it made "no difference that the religious 'truths' inculcated may vary from one child to another," or "that a sense of religion may not be installed."

If the Bible were being studied as an "artistic work, a treasury of moral truths or historical text which can be separated from the espousal of doctrinal matters and religiousness," the Court said it would have no objection.

Most districts in Pennsylvania have indicated that they will continue the daily Bible readings pending a ruling of the state attorney general.

Four school systems study joint research

Four Connecticut school systems—Darien, Westport, Greenwich and New Canaan—are studying the possibility of forming a joint research office for the use of their boards of education.

The proposed council would study administration, office methods, curriculum, teaching methods, guidance and possibly school construction needs and salary scales. Findings of the body would not be binding.

The research office was the idea of a management consultant who resides in one of the suburban towns. He discussed it with school superintendents and recently presented it to the boards of education involved.

If the four school systems approve the idea, the Ford Foundation's Fund for the Advancement of Education will be asked to supply $150,000 for the first three years of operation. Thereafter, it is hoped that private industry or the school boards involved will support the project.

School Superintendent Albert P.

text continued on page 29

Too good to miss . . .

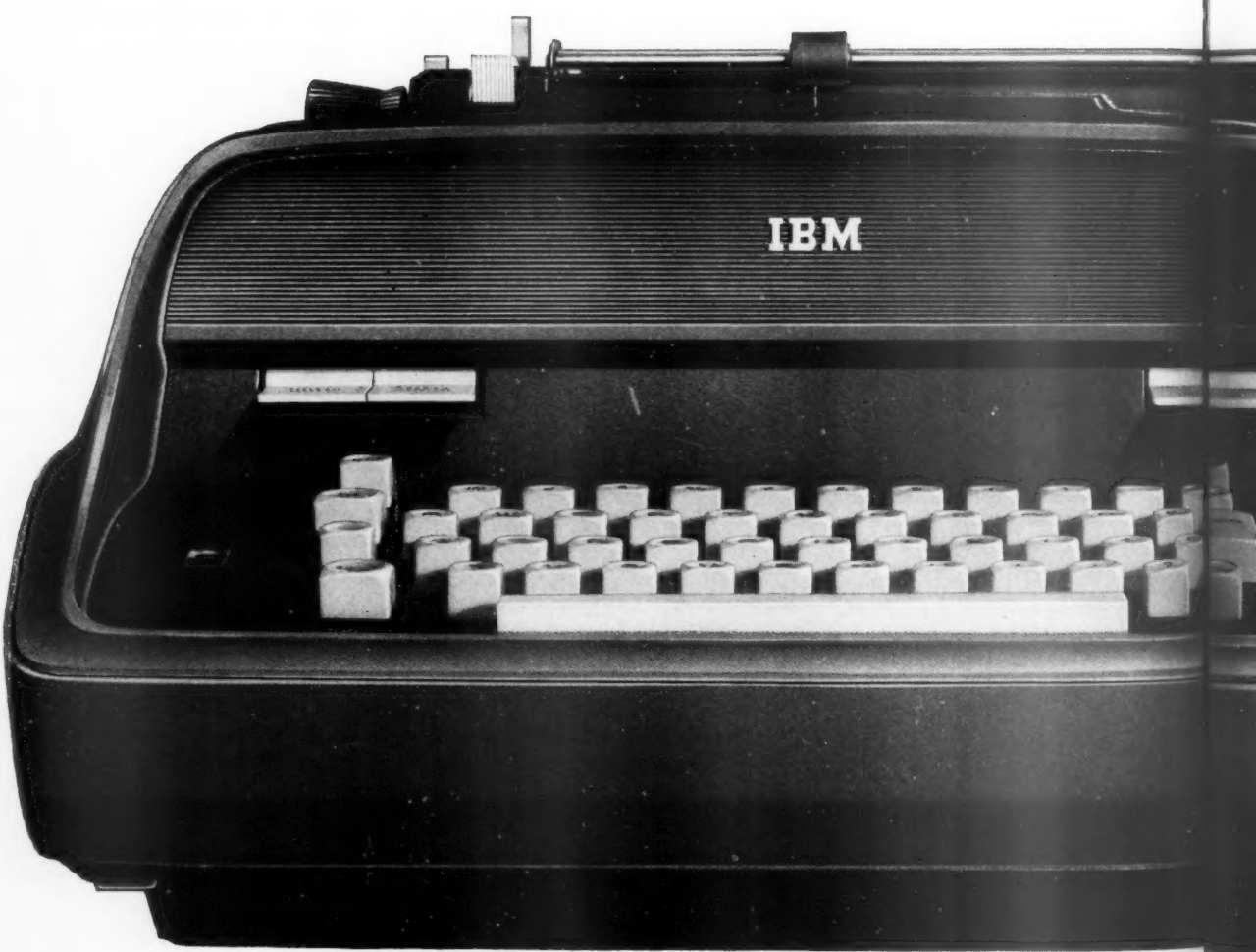
Beautiful . . . When Marlinda Mason was scrutinized by officials of the Miss Colorado of 1960 contest she looked so good she won first prize. But when she presented her five-foot, six-and-a-half inch self to Denver public school authorities, she flunked. Seeking a teacher's license, she was turned down because she weighs only 117 pounds, seven less than regulations.

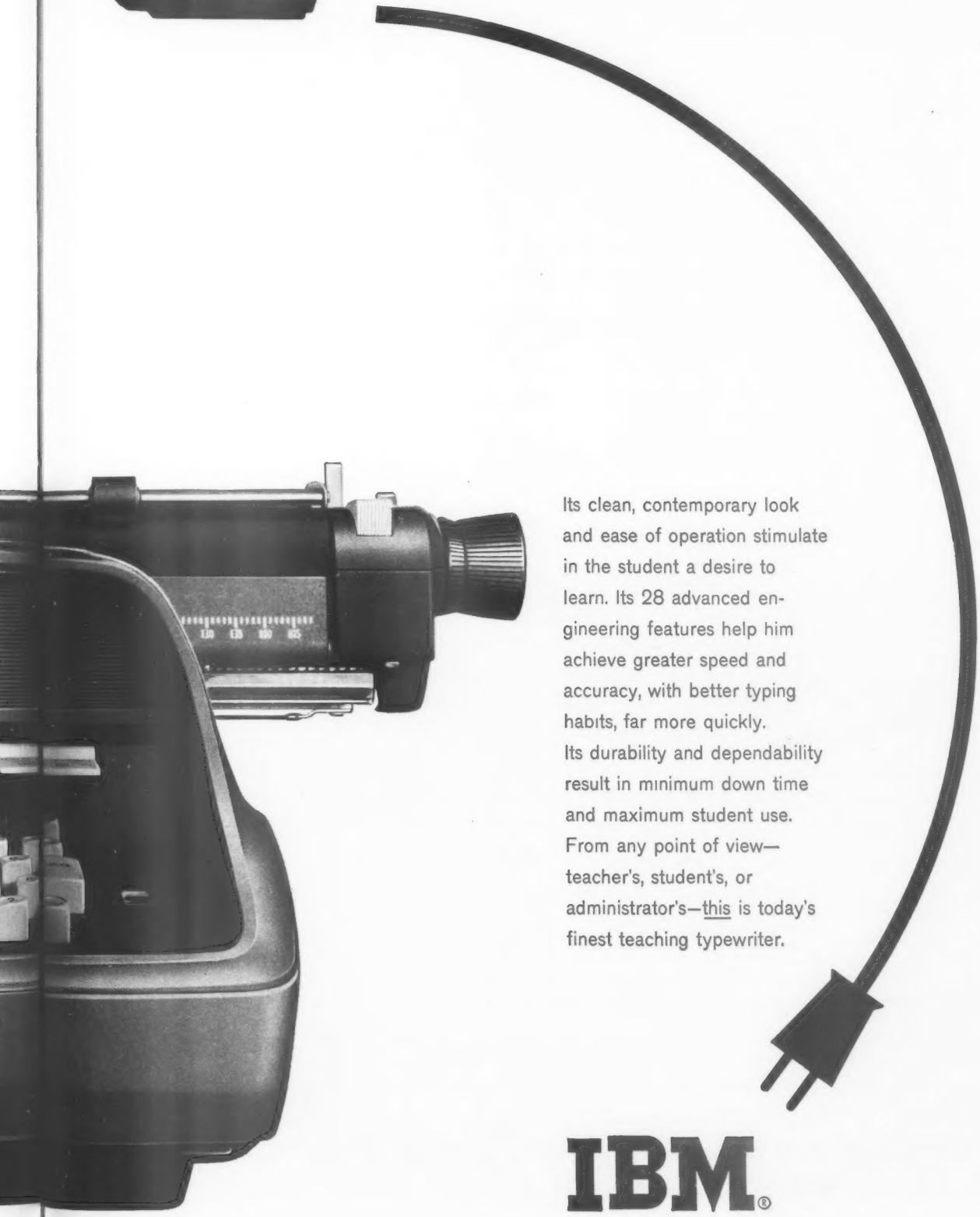
Musicful . . . Denver students may not be treated to the sight of Miss Colorado, but in Kansas City, Kan., Shawnee-Mission North High School students are getting a treat of a different kind. There the loudspeaker system is delivering classical music instead of school announcements and the Shawnee football team is the only one in the nation scrimmaging to Bach and Beethoven. School officials say it's not intentional—the system is picking up broadcasts from a nearby FM radio transmitter.

Bellyful . . . Neither music nor beauties in the classroom could pacify Robert McCormick of Burnt Hills, N.Y. He thinks school costs are too high—especially his taxes. To show how he felt he took the shirt off his back and handed it to the Burnt Hills-Ballston Lake tax collector. Written on the back was a check for $163.39, his year's school taxes. The man's bank went and cashed it, too. "In a few years I won't even have a shirt to give them," McCormick complained.

Wonderful . . . To seven-year-old Leighton Armitage, beauty, music and taxes are just diversions in a wonderful, wonderful world. What makes him so happy? Well, Madame Nina Petrovna Khrushchev unexpectedly visited his home one day while her husband was engaged in a conversation with President Eisenhower. Leighton may have been awed by the visit, but he never forgot the important things in life. "Boy, have I got something to talk about in 'show and tell,' " he exalted.

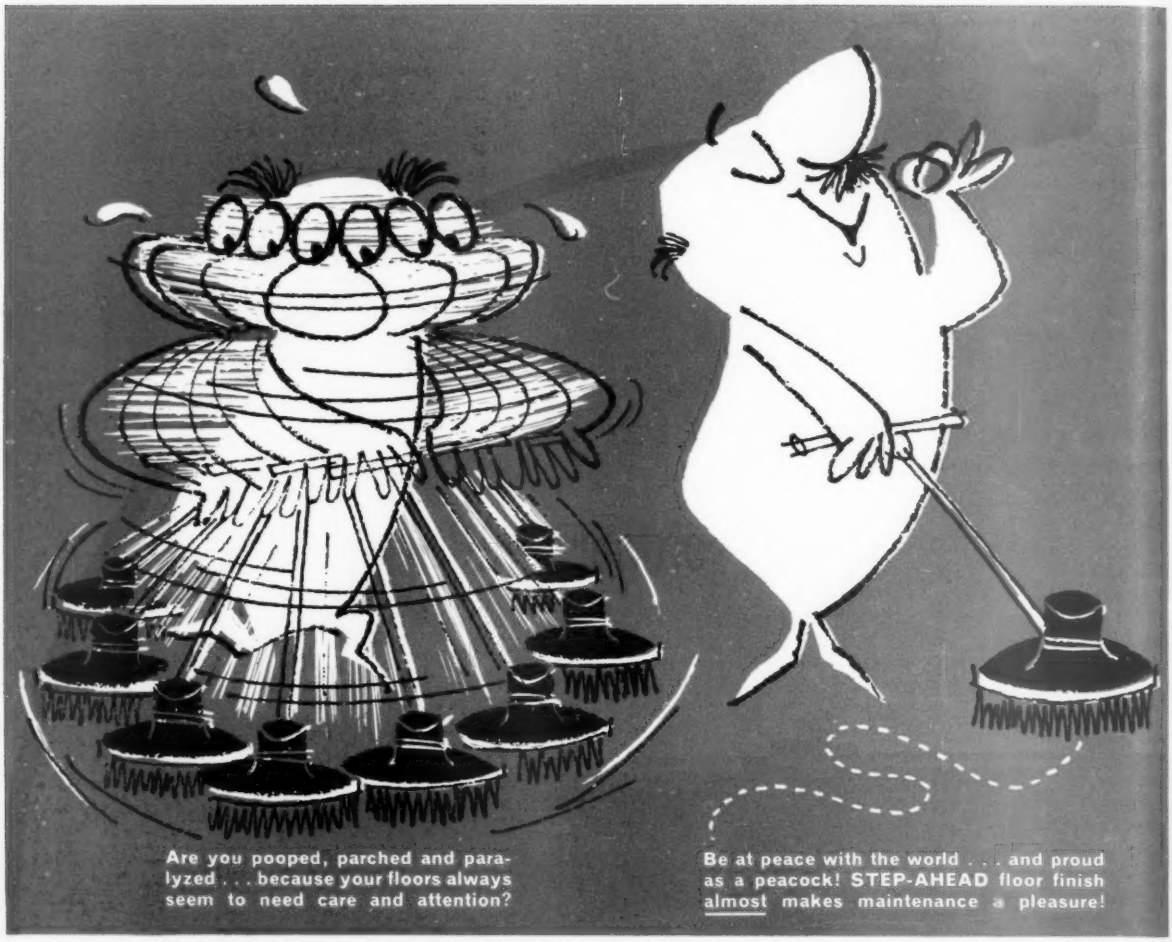
this is the new IBM Electric





Its clean, contemporary look and ease of operation stimulate in the student a desire to learn. Its 28 advanced engineering features help him achieve greater speed and accuracy, with better typing habits, far more quickly.
Its durability and dependability result in minimum down time and maximum student use.
From any point of view—teacher's, student's, or administrator's—this is today's finest teaching typewriter.

IBM®


Are you pooped, parched and paralyzed . . . because your floors always seem to need care and attention?
Be at peace with the world . . . and proud as a peacock! STEP-AHEAD floor finish almost makes maintenance a pleasure!

Johnson's Step-Ahead cuts your work in half!

STEP-AHEAD SAVES WORK . . . **by requiring far less intermediate maintenance.** You don't need to damp mop, buff or touch up nearly so often, because STEP-AHEAD resists scuffing, dirt pick-up and rubber marking like no other finish.

STEP-AHEAD SAVES WORK . . . **by extending the maintenance cycle.** You don't have to scrub or refinish STEP-AHEAD as often as other finishes, because its durable polymer ingredient outlasts other finishes . . . stays good-looking far longer.

STEP-AHEAD SAVES WORK . . . **by making it easier to refinish** when refinishing becomes necessary. STEP-AHEAD alone has its tailored-to-the-job emulsifier system. That means it strips easily, is easy to apply, is easier to patch or replace.

Your first drum of tough STEP-AHEAD can save you enough to pay for the next two! For proof, call your local Johnson's Wax Distributor today. Write for his name to Johnson's Wax, Dept. SM-10, Racine, Wisconsin.

STEP-AHEAD is a product of JOHNSON'S WAX

SERVICE PRODUCTS DIVISION

S. C. JOHNSON & SON, INC., RACINE, WISCONSIN. "JOHNSON'S" AND "STEP-AHEAD" ARE REGISTERED TRADEMARKS.

(Circle number 735 for more information)

Mathers of New Canaan praised the project because "it cuts across town lines which until now have been rigid barriers . . . [it means] cooperative action to solve common problems."

The research office, when formed, would be staffed by a management consultant, two educators, an industrial engineer and a public relations director. An advisory council of teachers and laymen would be formed and superintendents and board members would constitute the governing board.

All new teachers being introduced on television

All 112 new teachers on the instructional staff of the Springfield, Mo., public schools this year will be introduced to their new community by television. But this won't be one overall chorus-line type of picture. Instead, each teacher will get his or her own five minutes on the air on one of Springfield's top afternoon spots.

The local variety program "For Your Information," will devote five minutes daily of its 4 to 4:30 p.m. time to an interview with a new teacher. The teacher will be introduced by the program's master of ceremonies Jess Wade and then will be interviewed by Robert C. Glazier, the district's director of public information.

The "Meet the Teacher" spots will continue through late February, 1960, by which time each of the teachers will have had a chance to be heard on the program.

New York to study high resistance areas

A study of the relationship of parochial school enrollment to school budget defeats in New York State has been undertaken by the state's education department.

The study is part of an intensive survey of about 30 school districts that have consistently defeated, or mounted substantial opposition, to school budgets. They have been designated as "high resistance" districts by James E. Allen, Jr., state commissioner of education.

This will mark the first time that a government body has investigated the oft-repeated charge that pressure by parents of parochial school students was threatening the quality of public

text continued on page 32

Bruning's amazing new Copyflex 105 copying machine *costs no more than a typewriter,* saves hundreds to thousands of dollars annually in the preparation of transcripts of student records, progress reports, schedules, accounting reports, examination sheets, purchase orders and a host of other paper work,

With Copyflex 105, you type or write information only once on one original form or sheet. From the original, you make sharp, clear Copyflex copies — in seconds — at the low cost of 1¼¢ each for letter size. Information can be added, changed, or blocked-out on the original, at any time, and Copyflex copies again made of the up-to-date or revised original. No typing. No proofreading.

You owe it to yourself and your school to investigate the remarkable Copyflex 105, priced at only $295, by mailing the coupon below.

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(Circle number 765 for more information)

Look what's happened to the little wh

Design your schools better with PITTSBURGH

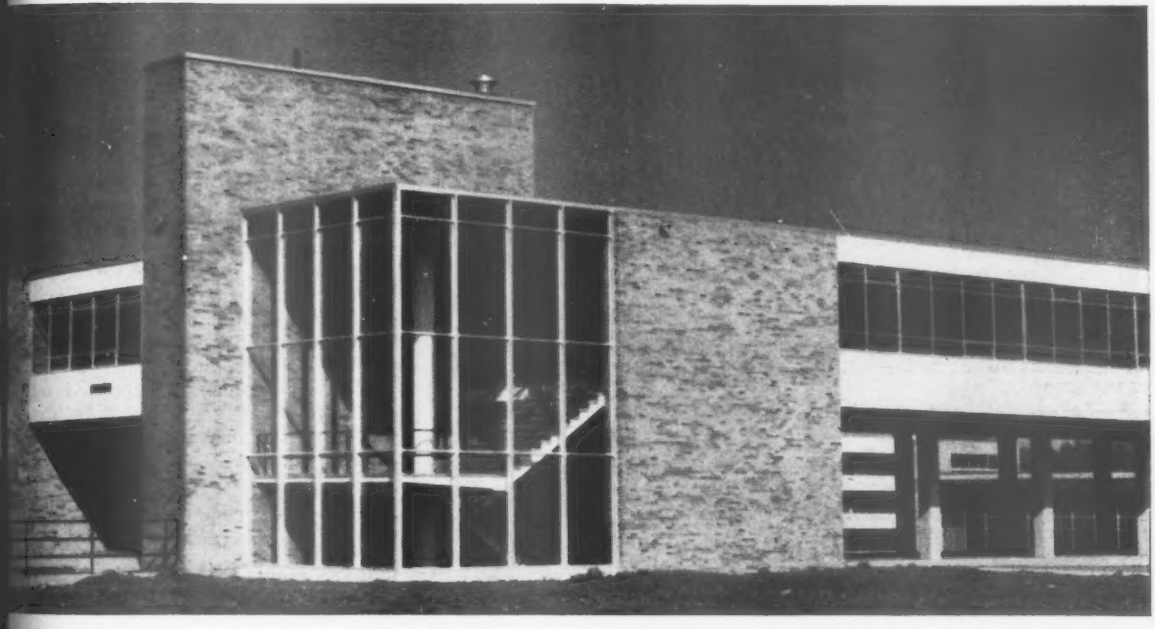
e white schoolhouse!

The schools that seemed good enough for us are *not* good enough for our children. Ferndale High School in Ferndale, Michigan, is proof that something *is* being done to meet the urgent demand for new and better schools.

In Ferndale, the antiquated wooden boards of the little white schoolhouse have given way to modern glass curtain walls. The old-fashioned windows—too few and too far between—have been replaced with thousands of square feet of Pittsburgh Polished Plate Glass, PENNVERNON® Window Glass and ¼" HERCULITE® Tempered Plate Glass. And in the rooms inside, highly reflective Pittsburgh Mirrors have provided a new feeling of spaciousness and beauty.

The dark, cramped, cheerless environment of the old schoolhouse is gone for good. Pittsburgh Glass has helped give the children of Ferndale a big, bright, beautiful, new high school.

Architect: Jahr-Anderson-Machida Associates, Dearborn, Michigan.
General Contractor: Darin & Armstrong, Inc., Detroit, Michigan.



CONSULT YOUR ARCHITECT for information about the use of these famous Pittsburgh Glasses in school construction:

Solex®.....green tint, heat-absorbing and glare-reducing plate glass	Polished Plate Glass.....for clear, undistorted vision
Solargray®.....neutral tint, heat-absorbing and glare-reducing plate glass	Pennvernon®.....window glass at its best
Herculite®.....shock-resisting tempered plate glass	Spandrelite®.....glass in color
Twindow®.....the world's finest insulating window	Pittco®.....glass-holding and decorative metal members

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PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

(Circle number 744 for more information)

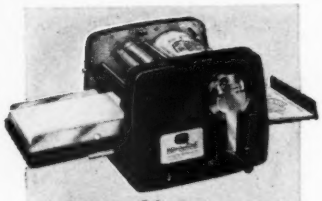
A demonstration will show you the new features that make it easy for anyone to run the HEYER Mark III Conqueror

After a few minutes instruction, anyone can duplicate clear, sharp copies in 1 to 5 colors of anything typed, written or drawn on a spirit master. Now, duplicating is as easy as dialing the telephone and just as fast!

At no increase in price you get such wanted features as a new feed table that eliminates those tricky side rubber adjustments; highly visible re-set counter that saves time and paper; adjustable feed wheels for wrinkle-free, non-skip feeding; and feed tension control for dialing correct tension on all types of papers—from thin papers to post cards—even newsprint.

An example of effortless operation is the automatic start-stop on electric models. The motor clicks off automatically when the last sheet is printed.

And your Heyer Conqueror never becomes obsolete. Parts are available for Heyer Duplicators made many years ago and new advances are designed for adaption on present Conquerors.



Conqueror Prices Begin at $214.50*

This low price for the MODEL 70—Hand operated with all features except electric drive. MODEL 76A—Electric, automatic start-stop $299.50.* MODEL 76B—Automatic, electric with 11" and 14" cylinder stop selector $324.50.*

**Plus Federal Excise Tax*

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"Always Makes a Good Impression"

Send for your FREE Personalized Desk Pad—Today!

A demonstration by mail to show what the Conqueror can do for you! No cost . . . no obligation.

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☐ Please send my Personalized Desk Pad and Literature on Conqueror Duplicators.

☐ I would like to have a one week FREE trial of a Conqueror Spirit Duplicator.

Name.....*Title*.....

Address.....

City.....*Zone*.....*State*.....

Name of School.....

(Circle number 728 for more information)

education in some areas of the state.

Other factors that will be investigated in the high resistance areas include economic and social conditions other than private schooling that might lead to anti-school votes. Although the department does not expect to offer any legislation as the result of the survey, it does expect to bring into the open questions which have been muffled in the past.

American schools good, says Russian visitor

American schools may not look good to such American critics as James Conant, Admiral Rickover and Professor Bestor, but to the Russian minister of higher and secondary specialized education, our technical schools, at least, are top notch.

Vyacheslav P. Yelyutin declared that the Mergenthaler Vocational and Technical High School in Baltimore is better than any similar school in the Soviet Union. He praised its well-designed classrooms and shops and the machinery the students used. "If I had a chance to take this school home," Yelyutin said, "I certainly would."

The minister, who was part of the Krushchev party, was impressed with the school's student-operated cafeteria, its swimming pool and its commercial beauty shops.

As he passed the hair dryers and other beauty equipment he commented, however: "It's very nice we're not women. All we have to do is comb our hair and after a while we don't even have to do that."

Mr. Yelyutin, a metallurgist by trade, was particularly impressed by the metal-working shops and by the work that beginning students had accomplished.

Maine reorganization blocked by court case

A court suit brought by residents of a small Maine town, is holding up progress in school reorganization and consolidation throughout the state.

School reorganization was given a shot in the arm when the state legislature passed the Sinclair Education Act which made it advantageous for small districts to centralize.

Four southern Maine towns—Standish, Buxton, Hollis and Limington—voted to form a central district and to construct a new high school at a cost of $775,000. Ground-breaking, scheduled to start this fall, has had to be

delayed because of a law suit brought in a town that has nothing to do with this consolidation.

Residents of the town of Liberty, Me., brought the suit after they had agreed to participate in another centralized district, then found that it would cost them more money.

The state legislature refused to allow Liberty to withdraw from the district on the grounds that it would undermine confidence in school bonds. Residents then brought suit to withdraw and this case is still pending in the courts.

Bond counsels in Maine have refused to okay the central district's bonds until the Liberty case is decided in the courts. The delay has already made it unlikely that the school can be constructed by next September, when it will be needed.

Complete safety course for elementary schools

A full program of safety instruction will be instituted in the Stillwater, Okla., elementary schools next year, under the aegis of the Oklahoma Safety Council. Stillwater is believed to be the first school district in the nation to undertake a comprehensive elementary school safety program.

Teachers and students in 5,000 classrooms will be provided with special materials including lesson units, posters, teachers' guides, workbooks, magazines and other selected items, all concerned with safety.

The cost of the program—about $12 per classroom—is being underwritten by Stillwater's civic clubs. Oklahoma Safety Council Manager Bob Eastman has described the program as "one of the most important we have ever undertaken . . . Basic safety knowledge is as necessary as the ABC's if today's child is to live in our mechanical world."

School lunch fights break out all over

Lunch period is supposed to be a nice relaxing time, when everyone can enjoy his food in peace. But in three schools at least, that phrase seems to have been changed to "enjoy his food in pieces."

Take Wickliffe, Ohio, for example. There a student boycott of hot meals almost closed the cafeteria. High school students, rebelling at a five-cent price

Put your best floor forward . . .

WITH THE

ADVANCE SPEEDBOY DELUXE

No finer floor machine at any price. More power than you'll ever need for the toughest scrubbing, polishing and carpet shampooing jobs.

Here's the heavyweight champ among floor machines. Repulsion-induction motor gives high torque power with far less amperage draw. Fully adjustable handle. Exclusive "Tip-Toe-Matic" control raises and lowers wheels at the touch of a toe. Greater weight per square inch of brush area for better, faster results. Available in brush sizes from 14″ to 24″.

No chains, whining gears, slipping belts or dripping grease. All Advance machines have a grease-free "Silent-Flo" drive. Power transmitted by a toothed, neoprene Flex-O-Gear with embedded steel cables. Can't slip. No metal-to-metal contact.

Here's the perfect companion for the Speedboy Deluxe—the Advance super-powered Hydro-Vac Industrial Vacuum. It is light, quiet, powerful. Picks up wet or dry materials.

ADVANCE

For full details, call your local distributor or use the coupon. No obligation, of course.

Lease and Finance Plans Available

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133 Industrial Center
Spring Park, Minn.

ADVANCE FLOOR MACHINE CO.
133 Industrial Center
Spring Park, Minn.

Please send information on:
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☐ Hydro Vac Industrial Vacuums

Name_____

Address_____

City_____ State_____

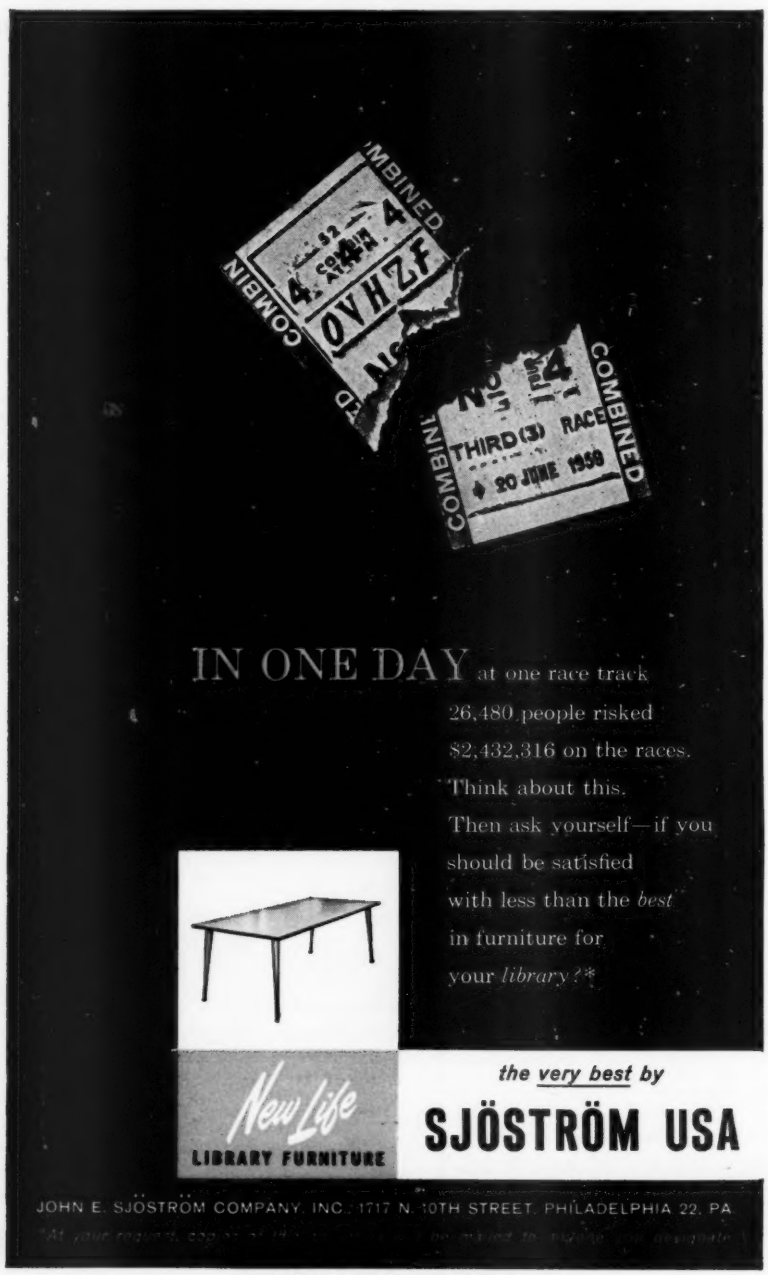
(Circle number 701 for more information)

increase in the hot lunch special, determined to pass it by during lunch hour. Instead they chose to eat salads, bread, sandwiches and other a la carte items. Lunch service at the 440-student high school, dropped to 30 meals, prompting Superintendent G. H. Michel to threaten to close the cafeteria if the boycott wasn't ended.

Meanwhile, in Wilkinsburg, Pa., students staged a one-day strike because of a new ruling that they must remain in school during the lunch hour. Striking for the "freedom" to eat where they like, 150 students staged the walk-out. The closed lunch hour had been instituted after merchants in the school area had complained about students littering the streets during the noon hour.

In West Hartford, Conn., students and their parents were complaining from the other side of the fence—they weren't being allowed to eat in. Due to an overloaded situation at one school, students were told that they would have to eat at home if they lived less than nine-tenths of a mile from school. Behind the decision was teacher unrest over a heavy load of non-teaching duties at the school.

In bringing the problem to light, retiring Board President Thomas E. McBride, who had earlier endeared himself to teachers by suggesting that they contribute $50 apiece from their pay to hire staff specialists (*SM, May '59, pg. 29*), said, "I've learned that each teacher is asked to spend a half-hour or a little more each week in lunchroom supervision. . . . If the teachers don't like it, they can just go somewhere else."



(Circle number 757 for more information)

What school austerity budget means—Con't.

School districts on New York's Long Island are still being shocked by the realization of what it means to live under a school austerity budget. Several districts that rejected budgets last spring are operating under state-mandated budgets that cut off all funds for transportation, lunches, textbooks, recreation, adult education and any but minimal maintenance.

In Roosevelt, N. Y., almost 10% of the district's 2,508 students are attending school without books because parents are unable to pay the rental fee the district was forced to establish. Rental of textbooks for a year comes to $5 per child.

"It's a terrible situation," said Supervising Principal Daniel R. Terry. "It has slowed down the learning process in many classes. . . . The caliber of education should be better and more should be given to the students if they are going to meet the demands of today's life. Instead, we here in Roosevelt are going backwards."

The board is refusing to allow installment payments on the book rental fee because of the bookkeeping involved and parents who have paid the fee have objected when teachers attempted to get their children to share books with those less fortunate.

And how much would it cost the taxpayers to restore books, lunches, recreation, transportation, adult education and capital maintenance to the budget? In nearby Wantagh, N. Y., voters are being asked to restore these services to the budget for a total of $78,743 a year. That averages out to 25¢ for each $100 of assessed valuation in the district. For textbooks alone, residents are being asked for 9¢ per $100 assessed valuation.

Public opinion balks board's "closed" policy

A ruling of the Houston, Tex., school board that would have served to undermine the authority of the dis-

trict's superintendent, has been rescinded following outspoken public criticism.

The board had passed a resolution setting up a committee to meet in secret session to screen all administrative appointments of Superintendent John McFarland. That screening committee would have then presented its recommendations to the whole board —still in secret session—before the recommendation was ever made in public.

The committee would be valuable, according to sponsor Stone Wells, in acquainting the board members with the backgrounds of applicants for administrative jobs. It would be equally valuable, noted the city's papers, in undermining the superintendent.

"Let's just note that—once again—the board has hired an administrator and promptly pulled the rug out from him," editorialized the *Houston Chronicle*. Faced with a public outcry against their actions, two of the board members refused appointments to the screening committee and, at the first decent moment, the board unanimously rescinded its action.

Substituted in its place was a committee of the whole, still to meet in closed session, to review administrative appointments. Previously appointments had been submitted in open session. Although the changed procedure still seemed to challenge the authority of the superintendent, his position was greatly strengthened by public support and the resurrection of a generally ignored 1923 state law that provides that the superintendent must approve any nominations the board may make.

Houston has had a history of squabbles between its board and administration which has led to the resignation of a number of previous superintendents.

Federal aid to stomachs reaches highest mark

Federal aid to stomachs—in the form of school lunch subsidies—will reach an all-time high this year. With about half the nation's 126,000 grade and high schools signed up, some 12.5 million students will dine under Federal-state auspices this school year.

Participating schools bought $421 million worth of food for their lunch tables last year. Federal contributions were an additional $210 million.

Although cash donations from the federal government are not expected to rise during the 1959-60 school year, food gifts may rise sharply. Congress has already added to the money available for the purchase of some items and price-support purchases of pork this fall are expected to boost the federal contribution still higher. Schools get first chance at buying this surplus food.

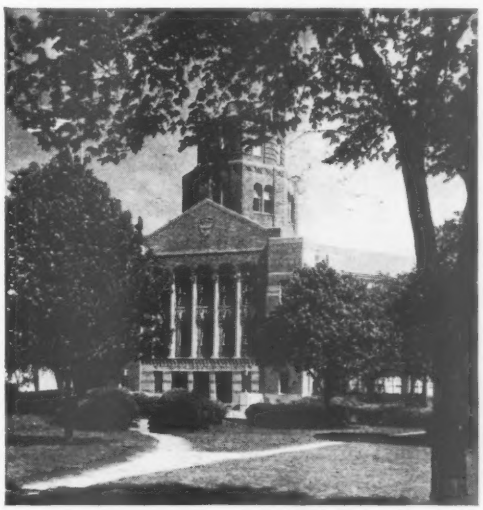
Teen-age smoking comes from home, not schools

A one-year investigation conducted by the American Cancer Society has indicated that teen-age smoking is a home, rather than a school, problem. The study, conducted among 21,980 high school students in Portland, Ore., indicated that parental smoking is the main reason that teen-agers take up the habit.

Education, however, does play a role. The study showed that there was more smoking among students with poor academic records and among those who do not participate in extra-curricular activities.

Further, future smoking problems, the study showed, could be alleviated by keeping students in school longer. This was borne out by the fact that there is inverse relationship of teenage

text continued on page 38



Maine Township High School, serving the Chicago suburb of Park Ridge, Illinois.

Here is the Conn Organ that won the tone contest at Maine Township High School.

Only Conn Passed the "Listening Test" At Maine Township High School!

When a school needs an organ for their auditorium, how do they go about choosing the *right* one? Here's what an active music parents group did at Maine Township High School, which serves the Chicago suburb of Park Ridge.

After raising the necessary funds, this enterprising group decided to hold a "Listening Test" to determine which make of organ would best serve their needs.

A Conn Organ was chosen to compete with three other makes of organs in a side-by-side comparison test. When all the votes were in and tallied, the results showed Conn Organ to be superior. That's why Maine Township High School decided on a Conn for their extensive musical program.

There is a Conn Organ to meet every requirement. If you are considering the purchase of an organ for your school, talk to your Conn Organ dealer about it. He will be glad to discuss your particular requirements. And he can arrange monthly payments that are surprisingly low.

If you prefer to write for more information, here is our address: Conn Organ Corp., Elkhart, Indiana.

There is a noticeable difference in a **CONN ORGAN**

(Circle number 714 for more information)

These USS AmBridge Modular Schools were started this spring . . . opened this fall!

Good-looking, economical steel schools go up fast . . . are strong and safe!

Building a new school needn't be a long, drawn-out project. An increasing number of school boards are getting new schools quickly by turning to USS AmBridge Modular Schools.

The two buildings shown here were begun just this spring—and completed for the fall term. Nobody was trying to set a speed record—AmBridge Modular Schools just lend themselves to simple, fast construction. These schools feature good, sound construction, lasting good looks and practical, flexible interior arrangement. Maintenance will never be a major problem either! And, of course, there's safety—both in the layout and the fire-resistant steel construction. USS AmBridge Modular Schools give you all of these advantages, *plus* economy.

USS AmBridge Modular Schools are built of standard steel components. They arrive at your site already assembled, ready for rapid construction in any season, cutting construction time and field work to a minimum.

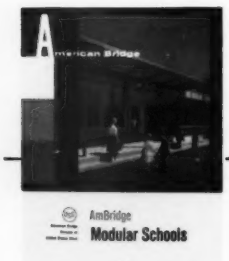
AmBridge Modular Schools are as beautiful as they are sturdy. Exterior and interior panels are available in a wide choice of attractive colors. Porcelain and baked enamel finishes are available—or stainless steel if you prefer.

If you're faced with a classroom shortage, suggest that your architect contact us. You'll like the economy and lasting good looks of USS AmBridge Modular Schools . . . and the early occupancy date.

USS is a registered trademark

See our ad next month for pictures of the beautiful completed schools.

American Bridge Division of United States Steel



Send for FREE copy of illustrated booklet

AmBridge Modular Schools
Room 1831, American Bridge Division
United States Steel Corporation
525 William Penn Place
Pittsburgh 30, Pennsylvania

Please send me a free copy of your 24-page booklet on USS AmBridge Modular Schools.

Name_____ **Title**_____

Address_____

If you are an architect, name of firm_____

City_____ **Zone**_____ **State**_____

Saint Cather
Roman Catholic Sch
Wildwood, Pennsylv
11,453 sq. ft. of floor
Eight 24' x 36' classroo
Archi
Joseph F. Bontempo & Associ
General Contrac
American Bridge Division, U. S. S

Elementary Schoo
Evans City, Pennsylvani
25,084 square feet floor are
Twelve classroom
Architect: B. J. McCandless
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Carcaise Construction Co
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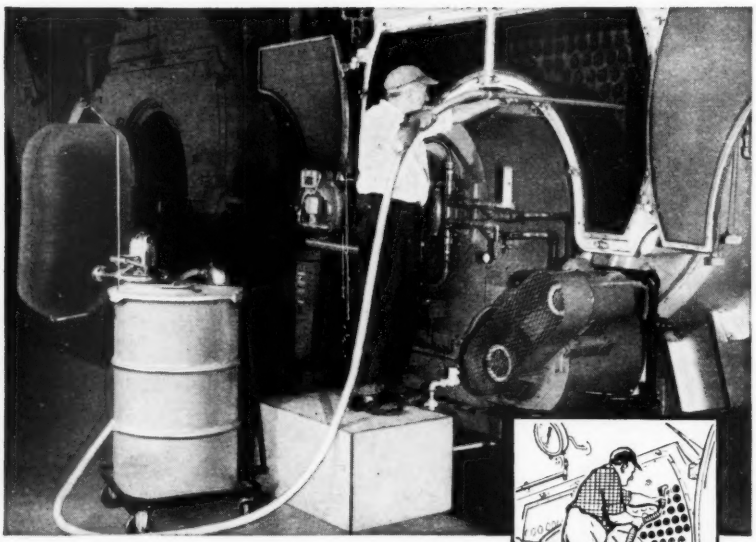
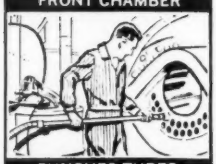
SCHOOLS CUT FUEL BILLS

WHEN BOILERS ARE CLEANED

WITH TORNADO®



FRONT CHAMBER



PUNCHES TUBES

REAR CHAMBER

SAVINGS OF 25% UP TO 40% WITH THIS NEW METHOD OF BOILER CLEANING

Take a look at your fuel bills and imagine what it would mean if you could save 25% or up to 40% of this cost.

The new Tornado Method of Boiler Cleaning with a Tornado Jumbo Vac can mean this savings to you. What's more, boiler cleaning becomes an easy task for anyone when Tornado is on the job.

Tornado Jumbo Vacs fit right on any standard 55 gallon drum. Complete attachments and a 4 wheel dolly are available.

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"TORNADO METHOD OF BOILER CLEANING"

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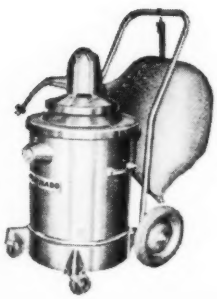
THE VERSATILE VACUUM CLEANER OF MANY USES

This famous wet or dry pickup vacuum cleaner has a removable motor unit that can be removed to make a blower or pac carried vaccum cleaner. Available in 3 motor sizes, this powerful machine does every cleaning job better and faster. WRITE FOR BULLETIN 894-A



BREUER ELECTRIC MFG. CO.

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(Circle number 710 for more information)

smoking to parents' educational level.

Altogether, 21 schools were involved in the study. The researchers found that 25.8% of the boys and 13.6% of the girls smoked. Public school students indulged in considerably less smoking than their counterparts in parochial schools.

Massachusetts cities want school control

A move to bring school committees (boards) under closer city supervision has been launched in Massachusetts by the Selectmen's Association. Selectmen are city council members.

The city officials overwhelmingly endorsed a resolution calling on the state legislature to repeal or change state laws "whereby school committees are considered financially independent of municipal budgetary control."

The move was pushed by a group of selectmen who want the power to cut school budgets. Leader of the group was Harrison T. Smiley of Braintree, Mass., who, along with three other town officials, was fined $100 for contempt of court for failing to restore $20,000 to the town's school budget.

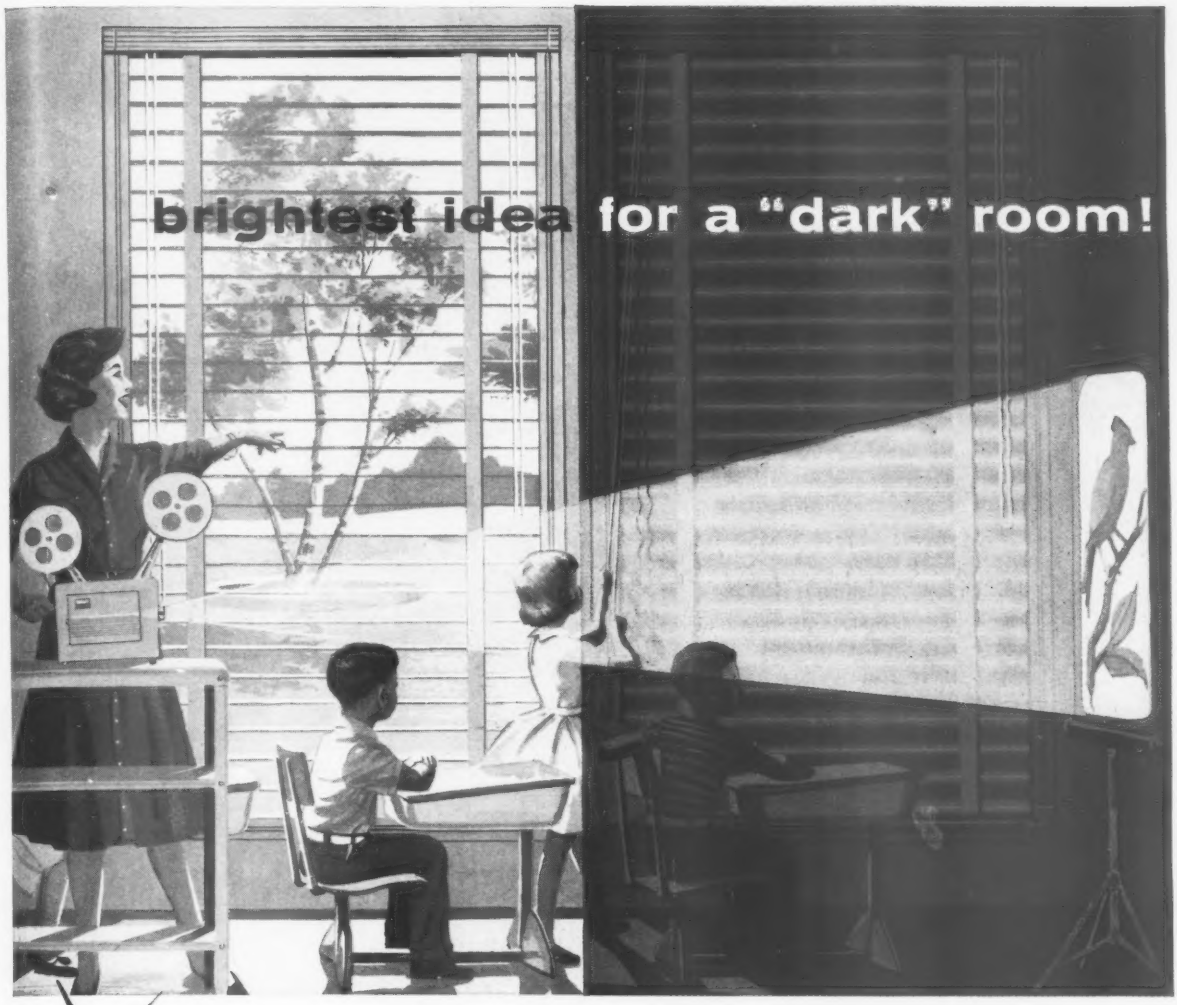
Report card trend towards "effort" grades

A discernible trend towards using report cards that show not only how a student is doing in relation to the rest of his class but also how he is doing in relation to his own ability, is showing up around the country.

In Auburn, Me., a report card that tells parents whether a child is able to do better, tries to do better, wants to do better or is doing better is now in its third year of use. A survey made by a curriculum committee has shown that the card has won wide-spread acceptance in the community.

In Kalamazoo, Mich., the schools have turned to a similar device. There students will still be graded on the basis of achievement in relation to a fixed norm. In addition, a section devoted to individual effort has been added. In this space, for example, a student who is doing work in relation to the rest of the class, but who should be doing even better than he is, can be graded accordingly.

Space for teacher analyses and parent replies has also been included, to make two-way communication easy.



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THE UNGRADED PRIMARY

Has your staff considered it?

Why should Jack, who can read third-grade books, be in the same class with John, who can hardly read, just because each is in his first year of school? Here is how two widely separated districts have broken out of the mold that holds all primary students in three set grades.

■ ■ ■ A revolution is taking place in the first three grades of many elementary schools. While educators, magazines and self-styled "experts" wrangle over the secondary school program, these elementary schools have taken a step which may well have more impact on the American educational system than all the changes that are being contemplated in our high schools.

The first three grades, generally known as "primary," are the three years when children are presented with the basic foundation for all they will do in the future. It is here that they will learn to be comfortable with words and numbers.

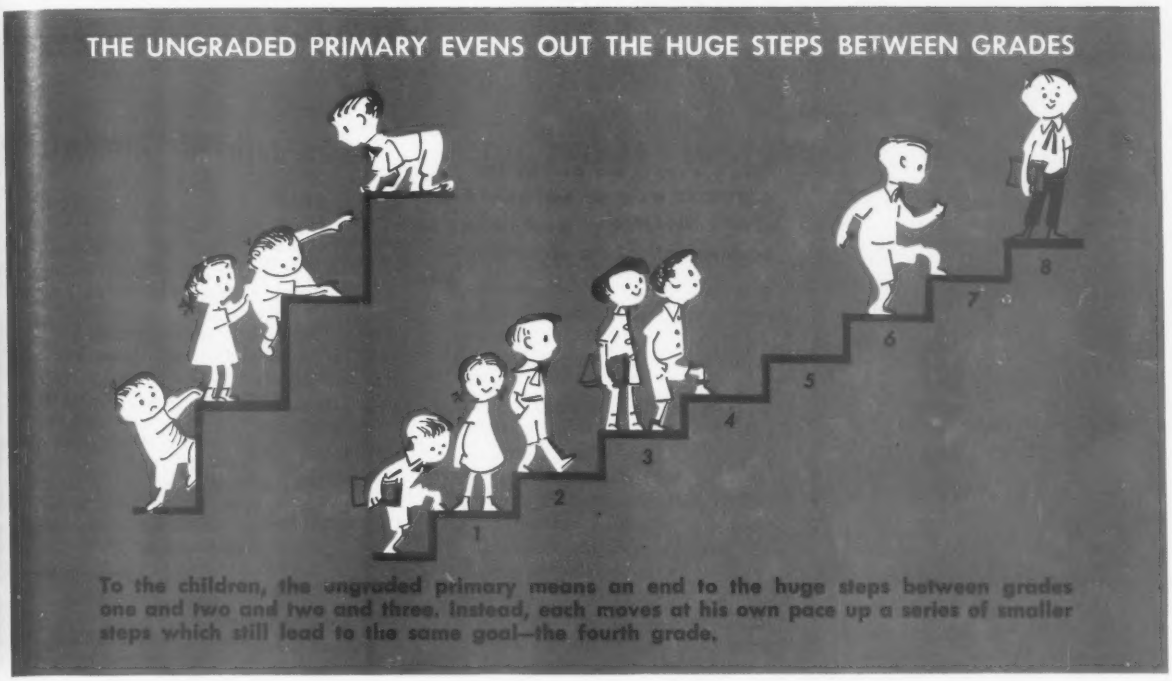
Many elementary school superintendents, teachers and principals, recognizing the vital importance of these years, have advocated a new system of organization known as the "ungraded primary."

The ungraded primary basically does this: Instead of putting children into three arbitrary grades, it sets up a series of "levels of achievement" to be met during these first three years.

There may be six, seven, eight or more levels in the primary school. Students move from one to another at their own pace. There is no problem of waiting for a new term to start to move on to second grade work. There is no stigma of being "left back" because a student has not completed a full grade's work at the end of a year.

Because of the great interest that the ungraded primary has raised throughout the nation, SCHOOL MANAGEMENT sent its editors to Burlington, Vt., and Hillsboro, Ore., each of which has had considerable experience with the new plan. In Hillsboro the ungraded primary was studied for several years, then instituted in one of three elementary schools on a three-year experimental basis, with control groups set up for comparison. The Hillsboro experiment is now in its second year. In Burlington, on the opposite side of the continent, officials have worked with the ungraded primary since 1952.

In the following tape-recorded interviews, Hillsboro Superintendent



To the children, the ungraded primary means an end to the huge steps between grades one and two and two and three. Instead, each moves at his own pace up a series of smaller steps which still lead to the same goal—the fourth grade.

Alton Smedstad, and Richard Hart, principal of the Peter Boscow School, in which the ungraded primary is being used, tell about their experience. Following that is an interview with Superintendent William Logan, Jr., of Burlington, covering other aspects of the program.

Alton Smedstad

Q Mr. Smedstad, you instituted an ungraded primary in the fall of 1958. What prompted you to try this system in Hillsboro?

SMEDSTAD: We had been studying various grouping plans for several years. But none of them really gave us the flexibility we desired in dealing with the individual differences in children. For example, in the spring of 1958 there were approximately 90 students in one school ready to go into the second grade. They were in three separate classes, each of which had ostensibly completed a year's school work. But the students obviously ranged over a great area. Some of them were actually beyond their grade level and others were hardly starting to read. They didn't all belong in the same class. We decided to break from the traditional grading structure to see if we couldn't provide a more flexible method of assignment that would allow us to give children on each level the material that they were ready to undertake.

Q. What did you do to break down the traditional grade set-up?

HART: Instead of grouping children in grades, we broke down what they had to learn into learning or achievement levels. We set up eight of these levels for the first three years of school—the primary years.

Q. You say you have eight levels. How do these break down in relation to traditional grades?

SMEDSTAD: Well, it's hard to define it in that way but this is how we would set it up. Levels one, two, and possibly part of three, would correspond roughly to the first grade. Levels three through five would be the same as the second grade in a traditional set-up. Levels six and seven are the equivalent of the third grade. Level eight is a special enrichment level for students who have completed third grade work but are not ready to go into the fourth grade.

HART: Each of these levels is defined by the work a student must accomplish in them (*see box, pages 42 & 43*). A student is considered to have completed a level when he achieves all of the objectives of that level. For example, a student moved from level one to level two must have a mastery of the basic pre-primer reading text vocabulary. He must

"Each level is defined by the work a student must accomplish. A student completes a level when he achieves all of its objectives."
HART

know color and number words. He must be able to print his name legibly. He must be able to form letters correctly with direction. He must be able to get meaning from a picture, and he should have what we call an auditory recognition of beginning sounds. In addition to this, he should be able to count, visualize and understand numbers up to 10. When the teacher feels that he has successfully accomplished all this, he is moved on to the next plateau, level two.

Q. Does this mean that the whole class moves on to level two when the whole class has reached this understanding?

HART: No. This is the strength of the program. Any individual student can move on to level two when he is ready. Another student may be ready two weeks later. A third student may not be ready for a month but each is able to move at his own pace.

Q. So that actually you have more than one level in each classroom; or do you move students from classroom to classroom as they achieve a new level?

SMEDSTAD: Under ordinary circumstances a student would stay in his own classroom for a full year. There might be an exception where a child moved ahead so quickly that he would have to be moved out. But this does not happen very often.

HART: It does mean that there is more than one level in each classroom. Our objective is not to limit each classroom to one level of learning but to cut down the *range* of levels each teacher must face. We are saying that we are cutting down on the range of abilities and levels of learning. More important, we are allowing the teacher to be more flexible within this program. Let me give you an example. Under the traditional graded program, let's say we have a student, Arthur, in the first grade. By March of the year, Arthur is ready to go on to second grade work. The teacher can do one of three things. She can hold him back. She can give him advanced work which he will get again in the second grade. Or, she can give him what would be called "enrichment" work, which, in effect, keeps him from going on into second grade work. Then, the next September Arthur goes into the second grade and starts on a level with the other students in his class. Once again he may get ahead of his class.

By the same token, there may be another student in that first year class who, when May ends, has not completed the first grade work. Either he, Bobby, can be promoted

text continues on page 44

HERE IS WHAT EACH ST

LEVEL 1

Language Arts
1. Mastery of vocabulary of the basic pre-primer reading text
2. Know color words and number words
3. Print name legibly
4. Form letters correctly with direction
5. Picture reading—ability to get meaning from a picture
6. Phonics—auditory recognition of beginning sounds

Arithmetic
1. Number concepts to ten including counting, visualization, and *understanding*

LEVEL 2

Language Arts
1. Mastery of vocabulary of the basic primer reading text
2. Fluent oral reading—ease of expression
3. Phonics—understands all consonant sounds both audibly and visually
4. Good silent reading habits
5. Write short creative sentences
6. Form letters correctly independently in writing

Arithmetic
1. With understanding add using combinations to ten
2. Rote counting to 100
3. Begin study of denominate numbers

LEVEL 3

Language Arts
1. Master vocabulary of first grade basic reading text
2. Fluent oral reading with ease of expression
3. Effective silent reading—gaining thoughts from paragraphs
4. Phonics—consonants, diphthongs and vowels
5. Skill in using a picture dictionary
6. Ability to write short creative stories

Arithmetic
1. Subtraction with combinations to ten
2. Master number concepts to 100
3. More work on denominate numbers

LEVEL 4

Language Arts
1. Master vocabulary of basic first semester or easy second grade reading text
2. Effective silent reading—no lip

STUDENT IN THE HILLSBORO UNGRADED PRIMARY MUST ACCOMPLISH AT EACH LEVEL

reading, no finger as pointer, recognition of main points of a story, and ability to organize thoughts.
3. Fluent oral readings with expression
4. Phonics—long and short vowel sounds diphthongs, silent "e"
5. Dictionary skills—alphabetize to the second letter of a word
6. Spell phonetically short words
7. Begin sentences with a capital letter and end with a period in composition
8. In oral expression develop correct usage (elementary)

Arithmetic

1. Master combinations to ten
2. Facility in use of reasoning to solve problems involving addition and subtraction to ten, including an understanding of key words such as more than, less than, how many, altogether, etc.
3. Master number concepts to 100
4. Extend understanding of denominate numbers

LEVEL 5

Language Arts

1. Master vocabulary of basic second semester or difficult second grade reading text
2. Silent reading with comprehension
3. Introduce all phonetic skills
4. Use phonetic and structural analysis skills in spelling.
5. Extend skills of correct usage in oral expression
6. More work with sentences in written expression and introduce question mark

Arithmetic

1. Master combinations in addition and subtraction to twenty
2. Develop and extend skills in working with denominate numbers

LEVEL 6

Language Arts

1. Master vocabulary of basic first semester or easy third grade reading text
2. Silent reading with comprehension
3. Fluent oral reading with expression
4. Stress all phonetic skills
5. Structural analysis—elementary syllabication, accent mark, prefixes and suffixes
6. Antonyms, homonyms, and synonyms
7. Hyphenated and compound words
8. Verb endings
9. Contractions
10. Plural and singular forms
11. Introduce direct quotations
12. Punctuation—period, dash, question mark, exclamation point, and quotation marks

Arithmetic

1. Addition and subtraction to 100 including borrowing and carrying
2. Number concepts to 1000
3. Work with money to $1.00
4. Carry twice in addition to the tens and the hundreds place
5. Develop basic concepts in fractions—⅓, ½, ¼, etc.
6. Denominate numbers
   a. Time to the minute
   b. Measurement—all basic measures
   c. Calendar—days, weeks, months, years, and centuries
7. Problem solving to include one-step story problems using all concepts and processes that are understood by the pupils

LEVEL 7

Language Arts

1. Master the vocabulary of the second semester or difficult third grade reading text
2. Reading with comprehension
3. Enrichment and extension of all language skills at Level 6
4. Dictionary skills to include alphabetizing and diacritical markings
5. Read independently
6. Skimming for information in reading
7. Spelling all words correctly that are used in written expression

Arithmetic

1. Borrow twice in the tens and hundreds place
2. Understand zero in all processes
3. Problem solving of one-step problems involving all processes and concepts taught thus far
4. Multiplication and division tables through the 5's
5. Extension of skills and enrichment of experience in using denominate numbers

LEVEL 8

Language Arts

1. Mastery of phonetic skills
2. Know basic rules for syllabication and be able to use them
3. Independence in word attack
4. Instructional level in reading will be fourth grade plus
5. Choose correct meaning and determine correct pronunciation when using the dictionary
6. Reference skills
   a. Skillful use of encyclopedia and index
   b. Skill in finding topics and subtopics in paragraphs
7. Do research using reference and other language skills
8. Introduce proof reading in creative writing
9. Independence in spelling
10. Literature enrichment
11. Elementary skills in outlining—organizing topics, subtopics, etc.
12. Creative dramatics

Arithmetic

1. Concepts to 10,000
2. Add columns totaling 1000 plus
3. Fractions—basic concepts and terms
4. Problem solving—simple two-step problems
5. Enrichment of arithmetic vocabulary
6. Multiplication and division tables through 10's
7. Mutliplication with two-place multipliers and carrying
8. Division with one-place divisors and remainders

Each child will progress from level to level as rapidly as he masters the skills and the content at each level of achievement. He will not experience failure as it is sometimes experienced in the traditional system, but he will progress step at a time through the Primary School. Neither will he experience boredom, no matter how able or gifted, but will be stimulated and challenged every step of the way.

into the second grade, which means that he will not really be ready for the work he is going to get, or he can be retained. This means Bobby must repeat the whole first grade, although he has mastered part of that work. Furthermore, he has been stigmatized as a failure.

Now, under the ungraded primary, let's examine what happens to these two students. Arthur, who has completed the first grade—or level two in our system—in March, moves right on into level three. He may be ready for level four when the next year starts. In that case he will be put in a class which is starting on level four. This means that he loses no time. He continues working at his own rate of speed and is able to work with students and with teachers who are ready to give him the work he needs. Meanwhile Bobby may have completed level one by the end of the year but not completed level two. He will be put into a class in September which is on level two. He, too, is working at his own rate of speed and is getting the work he needs. This is what we see as the greatest single advantage of our program.

Q. When you inaugurated this program, how did you go about placing students at the various levels?

SMEDSTAD: Well, in the spring of 1958 the teachers had had at least a year's experience with the first and second graders. They knew where they were reading and how much they had accomplished—their IQ, etc. On the basis of this, they were assigned to a level in the primary school. When new first graders come in now, they start right from scratch and work up in the primary school a step at a time. But that first year, assigning children who were going into grades two and three was based on teacher recommendation.

Q The first year of your ungraded primary, the students going into the second and third grades, or what had been the second and third grades, were placed according to the knowledge of their teachers. But how about students coming into the first grade, now called the first level?

SMEDSTAD: We have in this school system a regular kindergarten program. During the last six weeks of this kindergarten year, we have instituted a reading-readiness program. Through this we are able to prognosticate, with a fair degree of accuracy, what each child will be ready for in the sense of formal instruction during the next year. Some students, not too many, are liable to be jumped right to level two. The great majority go into level one and are allowed to advance in that level as fast as they can. A few students are not yet ready for level one.

Q. What do you do with those students who are not ready for level one?

HART: We have instituted what we call a junior-primary program. This is limited to about 20 students. These are not mentally-retarded students insofar as we can determine. They are children who are slow maturing but have an average or better intelligence. Now, let us assume that a student comes into this junior-primary program in September and suddenly begins to mature rapidly. Perhaps by the end of October he is ready to go into the regular first level. If so, we would transfer him into that. Another student may come along more slowly but at the end of a year in the junior-primary he will be ready to go into level two or level three. In other words, although he was not ready for the first level when he entered the junior-primary in September, he may have caught up with his age group by the end of that year. Then, there may be the student who throughout the year still does not catch fire. If so, the next September he will be placed in level one. We would not hold him in the junior-primary any longer than that.

Q. Then your junior-primary is something of holding level for students who are not really ready to enter level one. Is that correct?

SMEDSTAD: Yes.

Q. Let's take the students who don't need the junior-primary. Most of them go into level one in September?

HART: Basically, yes. A few might be placed in level two but the great majority are in our readiness, or level one, area.

Q Mr. Hart, how do you advance students from level to level?

HART: Well, as we explained earlier there are minimum standards to be achieved before a pupil is promoted from one level to another. When a student completes the work on one level he is promoted to the next level.

Q. How does a student or his parent know the level on which he is working?

HART: When a student finishes a level, we send a report card out to the parent. The card simply says: "Dear Mr. and Mrs. So-and-So. This is to inform you that your child has satisfactorily completed whatever level he has completed in the primary school." The report card then goes on to say at what level he will be working in from now on. It also invites the parent to come in and discuss this with the teacher or myself.

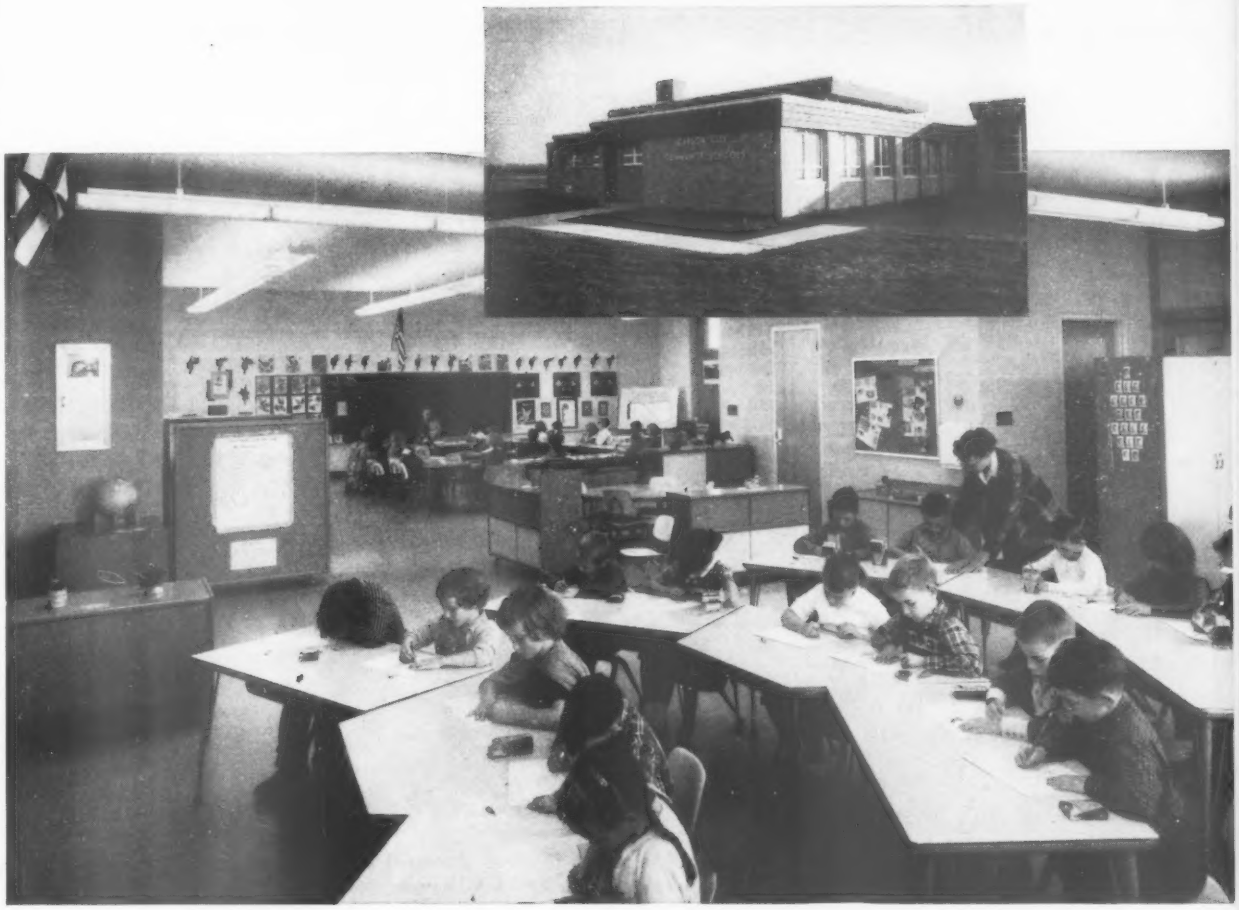
SMEDSTAD: There is a side benefit from this. Because students advance from level to level at different times, there is no great number of report cards to get out all at once.

HART: Incidentally, a student can be working on two levels at once. For example, if he is particularly bright in arithmetic he may advance to level two or three in that subject while still working on level one in reading. We try not to let this spread grow too wide but, after all, students do not advance at the same rate in all subjects.

Q. You mentioned earlier a level eight that you called a special enrichment level. How does this work?

HART: Well, let's take the case of the student who completes level seven in February or March of his third year in the primary school. He is ready to do fourth-grade work, but it is not desirable or practical to place him in a fourth-grade classroom until the following September. Such a student is placed in level eight. This level is designed to challenge and enrich the educational program for our able learners. This

continued on page 97



Flexible classrooms for a flexible curriculum

■ ■ ■ School architecture has changed vastly in the post-war period. Gone are the drab gray buildings and one-room wooden structures with tiny windows. Modern school architects have substituted for them the wing plan, the finger plan, single-story construction, sprawling, airy buildings looking out on wide lawns. But, with all these changes, fundamentally schools remain the same.

When you come right down to it, the most important part of a school is its classrooms, and with all the new outside styles being designed, the basic classroom has remained almost exactly as it was 60 or more years ago.

Most schools—particularly high schools—now have special rooms for special activities. There are science rooms, art rooms, multi-purpose rooms, cafeterias, etc. But the all-important basic classroom still contains a minimum of 600 square feet, whether it is to house 10 children or 100.

Breaking out of these "egg crates" has been a major concern of many leading architects, educators and school officials. New curriculums call for lectures and conferences. Television has brought changes in the needs of a classroom. Ungraded primaries, accelerated classes at the

"Teachers can organize learning activities to fit particular needs . . ."

Teaching area is divided into two classrooms with movable furniture. Acoustics are such that there is no disturbance.

intermediate level, and master teachers have also contributed to the need for change in the dimensions and construction of our basic classrooms.

As Superintendent William Logan, Jr., of Burlington, Vt., told a SCHOOL MANAGEMENT editor, (*see page 99 for a story on Burlington's ungraded primary*): "In the future design of schools we are going to have to have areas where large groups can meet for presentations. All of the grade must be able to see this presentation. Then, again, we are going to have to break up and go back into smaller groups, almost on a college seminar basis. It's going to take a new kind of classroom structure."

IN Carson City, Mich., the architectural firm of Louis C. Kingscott & Assoc. worked together with Superintendent Martin Atkins to design an elementary school that could accommodate a modern educational program and be adapted to any future educational changes.

Basic to this program is the idea of flexibility. The Carson City program contains an ungraded primary. It also makes use of master teachers, especially at the intermediate level. Students may shift from class to class depending on the subject and their understanding of it. The concept of a specific class for each child has been replaced by a concept of an enlarged attendance unit in which children may be assigned to learning activities by abilities and interest.

To meet these needs, Architect Kingscott has designed a school which provides groups of home units, or clusters, each of which will have about 120 students. Furniture and equipment are movable so that teachers can take advantage of this flexibility and organize learning activities to fit the particular needs of pupils and to adjust to varying methods of instruction, (*see illustrations this page and on pages 45 and 47*).

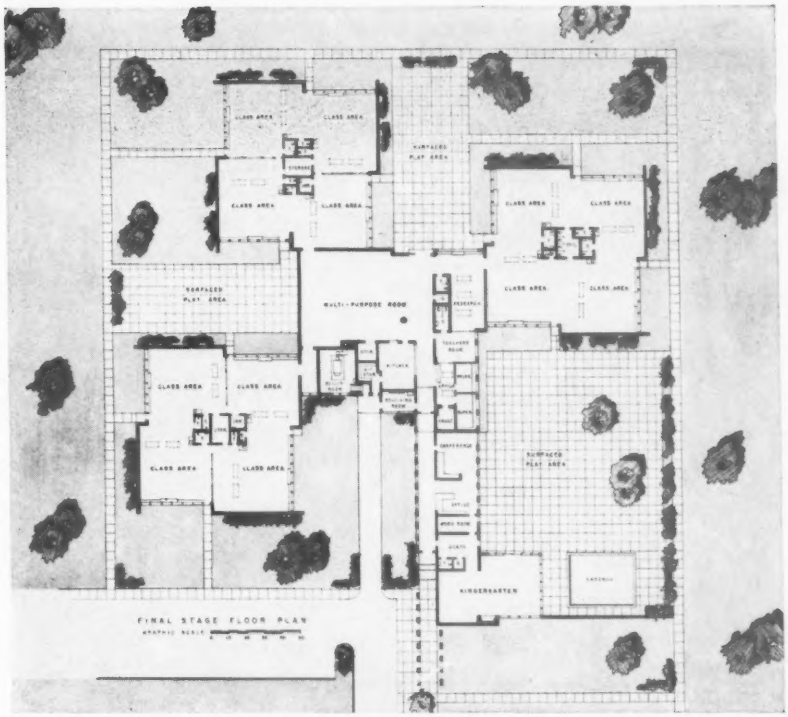
If the intermediate teachers, for example, plan to hold one large-group discussion with a master teacher, students from all four classes can meet together. If the subject being taught calls for discussion by each class separately, the movable furniture is rolled back into place. Two or three classes can be brought together similarly—or parts of them can meet together—while the others remain separated. As Superintendent Atkins says: "The cage-like enclosures of the traditional grade room have been replaced by instructional space which is completely flexible, responsive and mobile. The space requirements may respond momentarily to the imagination, activity or learning situation of pupil and teacher alike. Multi-grade teaching, pupil movement from one level to another and greater utilization of teacher talent are easily attained by the elimination of partition barriers between various classes."

◀ APART

As two or more separate classrooms, area allows for comfortable, quiet teaching situation. Students have a home room to which they come each morning, but once activities start they move with ease into any area of the classroom wing. Teachers in each wing work closely to plan activities, use of the area. All furniture is movable to facilitate grouping and regrouping of students.

▼ TOGETHER

With dividing furniture and cabinets pushed aside, students are able to come together in one large class. Two, three or even four classes can meet at once, without leaving their classroom wing. Teacher strengths are utilized as teachers divide students. For example, one teacher may teach arithmetic to all students in wing, while another handles music, a third social studies, fourth science.



Carson City school has three instructional areas, each with four flexible classrooms built around a center unit. Each area opens onto multi-purpose room.

Master teacher's appearance calls for bringing two classes together. Furniture is moved aside to make room for students.

How to project enrollment accurately

One key to support of a bond issue is a convincing and dependable school enrollment prediction. In this article two specialists tell you how the job should be handled.

By ROSCOE C. BROWN, JR. and ALBERT SOMIT

■ ■ ■ Most laymen—and a substantial number of professional educators—blithely proceed on the assumption that it is an easy matter to predict future school-age population for their district. Just find the number of pre-school children, deduct the number of those who will not attend public school, add a certain number of children to the total school-age population for each year under consideration and, lo, there is your enrollment estimate! The results of this kind of forecasting are usually embarrassing. A classic example occurred in a suburb of New York City where a new elementary school building was forced to open on double sessions despite an estimate, barely a year before, that the building would be adequate to meet school needs for several years in the future.

THE AUTHORS

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Why forecasts fail

Few communities have an accurate count of pre-school children, especially those under one year of age. Where the community is growing, the rate of growth must be accurately determined and the number of children per home properly established. This, in turn, requires careful study of the population groups both moving into and out of the community, of concomitant changes in local birth rates, of the impact of ethnic and religious immigration and emigration, and trends in parental plans for children with regard to public or private school. Nor can one safely assume that every child entering the school system will remain to graduate: drop-out rates, transfer rates, the probable growth rate of private and /or parochial schools must all be given proper weighing. And these are only some of the most obvious variables that must be considered in a school enrollment projection.

How to start a survey

Faced with what is truly a complex question, how then can a board of education and a superintendent insure that they are proceeding on the basis of accurate enrollment predictions? To begin with, most specialists in this field agree that an accurate census of pre-school and school age children is the basic point of departure for accurate projections. In order for the census to be of greatest use, it should be a *dwelling unit* census. Many school districts take a yearly count of preschool children, but this type of census is subject to accumulative errors in that some childless dwellings are overlooked in the succeeding years under the assumption that they are still childless. A periodic census of each habitable dwelling unit eliminates this error and makes it possible to keep abreast of changes in the number of residents in an entire school district. A

dwelling census should obtain the following information:

1. Type of dwelling—single, double, multiple
2. Age of dwelling and length of time in dwelling
3. Address of dwelling
4. Number and age of adults in dwelling
5. Number of pre-school children by age and sex
6. School plans (public, private or parochial) of pre-school children
7. Number of school age children by grade, sex and the name of the school attending
8. Reason for non-attendance of school age children not attending school.

A standardized form, such as shown in the illustration (*see below*) makes it very easy to collect this data. This form can be precoded for punch cards as in the illustration.

There are several ways of getting the school census taken: paid enumerators, teachers on released time or paid on an extra work basis, or volunteers from the PTA or various citizens' organizations. It has been our experience that volunteers trained and supervised by a professional specialist in census work is the most effective and economical way of obtaining an accurate dwelling unit census.

The key to the effectiveness in using volunteer enumerators is training and supervision. There is another value in using volunteers, however. Most people become interested in the public schools. Although volunteers should be definitely instructed not to discuss school politics or affairs, the close involvement in such an important aspect of local school affairs cannot help but stimulate more interest and concern about the public schools.

Tabulating the findings

After the census data is obtained, it must be tabulated. As in the case of taking the census, there are many ways to tabulate census data. It is here, we might add, that many school districts fail badly. School census data can be tabulated by hand, punched onto edge-punch cards and then hand sorted, or punched onto IBM or Remington Rand cards and machine tabulated. Where the community is composed of from 500 to 1,000 families, machine tabulation is recommended.

The data for each child should be punched on a separate card, thus facilitating various cross tabulations. An example of a cross tabulation that is very helpful is the tabulation between number of years in the school district and grade of the public school children. It reveals the trend by grade-level of pupils moving into the district. Unless the data for each child is on separate cards, a great deal of time will be spent in reshuffling to make an accurate analysis.

Some boards of education might ask, "Isn't this IBM type of work too expensive and too complicated for our school district?" The answer is, "No." Whereas machine tabulation may cost more initially, it is much more accurate and more flexible in getting needed tabulations, and thus more economical in the long run. Nor do you need a machine installation of your own. Service bureaus can be hired to do the job.

Once the school census data is on cards, they can be used for

This form is used to record information in a manner which makes it easy for it to be punched onto tabulating cards.

BETHPAGE SCHOOLS CENSUS FORM

SERIAL NUMBER 1-5 | FAMILY NAME 10-21 | FIRST NAME OF HEAD OF HOUSE 22-30 | STREET CODE 48-51

AREA 6 7 | NUMBER | STREET 39-47

BLOCK 8 9 | APT. NO. 52-53 | TYPE OF DWELLING 54 (S 1 D 2 T 3 M 4 O 5) | NO. OF UNITS 55-56

OCCUPANCY 57 (O 1 T 2 V 3 C 4) | NO. OF YEARS IN DWELLING 58-59 | ADDITIONAL DATA 60 61

ADULT FAMILY MEMBERS

AGE	18-20*		21-30		31-45		OVER 45	
SEX	M	F	M	F	M	F	M	F
NUMBER	62	63	64	65	66	67	68	69

TOTAL ADULTS 70 71 + TOTAL CHILDREN 72 73 = TOTAL HOUSEHOLD 74 75

(*) ENTER ONLY IF PARENTS

NAME OF CHILDREN UNDER 21	SEX (M-1, F-2)	DATE OF BIRTH MONTH	DAY	YEAR	SCHOOL ATTENDING IN SEPT.	SCHOOL PLANS FOR PRE-SCHOOL CHILDREN	GRADE	REASON FOR NON-ATTEND	HANDICAPPED CHILD	LAST NAME OF CHILDREN IF NOT FAMILY NAME
10-18	19	20 21	22 23	24 25	26 27	28	29 30	31	32	33

PLAINVIEW ALONE -- SCHOOL POPULATION PROJECTIONS Present Zoning

WITH PRACTICALLY NO PAROCHIAL SCHOOLS

GRADE	SEPT. 1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
K	582	798	798	759	648	533	488	505	532	537	519	526	534	525
1	621	744	857	815	777	650	525	479	495	521	515	488	494	502
2	546	688	811	887	845	790	662	534	488	504	530	515	488	494
3	448	608	750	838	914	857	801	670	542	496	512	530	515	488
K-3 TOTAL	*2297*	*2838*	*3216*	*3299*	*3184*	*2830*	*2476*	*2188*	*2051*	*2058*	*2076*	*2059*	*2031*	*2009*
4	476	489	647	763	850	914	865	807	676	548	502	512	530	515
5	451	527	540	670	786	860	923	872	814	683	555	502	512	530
6	270	497	573	561	691	795	868	929	878	820	689	555	502	512
4-6 TOTAL	*1197*	*1513*	*1760*	*1994*	*2327*	*2569*	*2656*	*2608*	*2368*	*2051*	*1746*	*1569*	*1544*	*1557*
7	253	298	523	581	569	690	800	872	933	882	824	689	555	502
8	267	289	334	539	597	576	696	805	877	938	887	824	689	555
9	227	298	338	372	583	633	611	730	839	911	972	917	854	719
7-9 TOTAL	*747*	*885*	*1195*	*1492*	*1749*	*1905*	*2107*	*2407*	*2649*	*2731*	*2683*	*2430*	*2098*	*1776*
10	127	243	311	335	368	564	612	590	705	805	878	933	884	820
11	100	139	253	312	335	364	550	596	592	686	775	843	896	853
12	96	113	151	255	313	331	360	541	586	582	660	744	809	860
10-12 TOTAL	*323*	*495*	*715*	*902*	*1016*	*1259*	*1522*	*1727*	*1883*	*2073*	*2313*	*2520*	*2589*	*2533*
GRAND TOTAL	4564	5731	6886	7687	8276	8563	8761	8930	8951	8913	8818	8578	8262	7875

WITH PAROCHIAL SCHOOLS AFTER 1962

GRADE	SEPT. 1962	1963	1964	1965	1966	1967	1968	1969
K	498	505	532	537	519	526	534	525
1	499	489	495	521	515	488	494	502
2	591	508	498	504	530	515	488	494
3	697	599	516	506	512	530	515	488
K-3 TOTAL	*2285*	*2101*	*2041*	*2068*	*2076*	*2059*	*2031*	*2009*
4	743	703	605	522	512	512	530	515
5	785	750	710	612	529	512	512	530
6	746	791	756	716	618	529	512	512
4-6 TOTAL	*2274*	*2244*	*2071*	*1850*	*1659*	*1553*	*1554*	*1557*
7	695	750	795	760	720	618	529	512
8	617	700	755	800	765	720	618	529
9	611	681	779	784	879	840	795	693
7-9 TOTAL	*1923*	*2131*	*2329*	*2344*	*2364*	*2178*	*1942*	*1734*
10	612	590	658	752	756	844	806	763
11	550	596	574	640	724	726	810	774
12	360	540	585	563	615	695	697	778
10-12 TOTAL	*1522*	*1726*	*1817*	*1955*	*2095*	*2265*	*2313*	*2315*
GRAND TOTAL	8004	8202	8258	8217	8194	8055	7840	7615

PLAINVIEW ALONE -- SCHOOL POPULATION PROJECTIONS Class "D" Zoning

WITH PRACTICALLY NO PAROCHIAL SCHOOLS

GRADE	SEPT. 1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
K	682	806	816	844	784	731	722	772	791	788	747	728	720	728
1	621	741	871	881	908	850	781	773	792	803	777	702	684	677
2	546	685	813	943	953	980	922	853	819	831	837	727	702	684
3	448	605	751	879	1009	1019	1046	988	895	855	862	837	777	702
K-3 TOTAL	*2297*	*2837*	*3251*	*3547*	*3654*	*3580*	*3471*	*3386*	*3297*	*3277*	*3223*	*3044*	*2883*	*2791*
4	476	488	648	793	920	1048	1069	1096	1010	922	878	862	837	777
5	451	526	543	703	848	975	1103	1124	1131	1030	948	878	862	837
6	270	496	576	593	753	898	1025	1153	1156	1158	1053	948	878	862
4-6 TOTAL	*1197*	*1510*	*1767*	*2089*	*2521*	*2921*	*3197*	*3373*	*3297*	*3110*	*2879*	*2688*	*2577*	*2476*
7	253	297	524	603	620	778	931	1058	1174	1174	1174	1053	948	878
8	267	288	336	563	642	659	817	970	1083	1195	1192	1174	1053	948
9	227	297	339	393	626	705	722	880	1021	1131	1241	1222	1204	1083
7-9 TOTAL	*747*	*882*	*1199*	*1559*	*1888*	*2142*	*2470*	*2908*	*3278*	*3500*	*3607*	*3449*	*3205*	*2909*
10	127	242	312	352	404	628	704	720	862	995	1098	1191	1173	1156
11	100	139	254	322	362	413	626	699	709	845	963	1054	1143	1126
12	96	113	153	266	332	371	421	630	696	704	819	924	1012	1097
10-12 TOTAL	*323*	*494*	*719*	*940*	*1098*	*1412*	*1751*	*2049*	*2267*	*2544*	*2880*	*3169*	*3328*	*3379*
GRAND TOTAL	4564	5723	6936	8135	9161	10055	10889	11716	12139	12431	12589	12350	11993	11555

WITH PAROCHIAL SCHOOLS AFTER 1962

GRADE	SEPT. 1962	1963	1964	1965	1966	1967	1968	1969
K	737	772	761	688	633	619	645	694
1	742	787	792	744	683	595	582	606
2	823	814	833	831	808	683	595	582
3	910	889	856	869	862	808	683	595
K-3 TOTAL	*3212*	*3262*	*3242*	*3162*	*2986*	*2705*	*2505*	*2477*
4	918	960	921	883	892	862	808	683
5	938	973	995	951	909	892	862	808
6	880	988	1005	1022	974	909	892	862
4-6 TOTAL	*2736*	*2921*	*2921*	*2856*	*2775*	*2663*	*2562*	*2353*
7	809	913	1009	1023	1038	974	909	892
8	725	848	938	1030	1041	1038	974	909
9	722	818	944	1031	1121	1116	1113	1049
7-9 TOTAL	*2256*	*2579*	*2891*	*3084*	*3200*	*3128*	*2996*	*2850*
10	702	720	803	921	1002	1076	1071	1068
11	626	697	709	788	892	962	1033	1028
12	421	630	694	704	764	856	924	992
10-12 TOTAL	*1749*	*2047*	*2206*	*2413*	*2658*	*2894*	*3028*	*3088*
GRAND TOTAL	9953	10809	11260	11515	11619	11390	11091	10768

This is how the Plainview, N. Y., schools presented their projection of school enrollment to compensate for two variables: with new parochial schools and with anticipated up-zoning. Such projections aid greatly in passing school bond votes.

many other purposes, such as redistricting school boundaries, planning of bus transportation, determination of rate of migration in and out of various geographical areas within the school district and the development of a list of pre-school children for the pre-school round up.

Use your school records

Other kinds of data needed besides an accurate census can be obtained from school records or from other sources in your local community. The school records will provide information on enrollments in past years. From this, ratios of movement of children from one grade to the next can be computed. This is done by comparing the number of children in a given grade (let's say the second grade) this year with the number of children in the previous grade (the first grade in this example) last year. This is called the "migration ratio." Thus, if there are 110 children in the second grade this year and 100 children in the first grade last year, the ratio is: $\frac{110}{100}$ or 1.10. This can be done for each combination of grades as far back as you desire to go. It is suggested, however, that an average migration ratio be computed for only the five most recent years and this ratio used in the enrollment prediction.

The migration ratios are used as correction factors as each grade of children is moved up to the next grade in the projection. In the case of the preceding example, the number of children in the first grade in a given year, let's say 150, would be multiplied by 1.10 to predict the number of children in the second grade the next year. In this case we could predict that there would be 165 pupils. Data from school records will reveal the drop-out from curtain grades in high school where drop-out is most apt to be a problem.

Additional information that must be obtained from other sources includes available land for residential building, the number and type of new dwelling units, plans for new private or parochial schools that would attract students from the public schools and birth rate trends. Careful checks must be made with all persons associated with the building industry in a community to find out how rapidly the available land will be developed for residential building. Personal communication with the individuals and developers building in the school district is the best way to obtain the information.

This data can be obtained from sources such as the local water district or post office, the local tax assessors' office, local real estate dealers, the county department of health, religious leaders in the community and any other legitimate source of information. Hearsay, rumor and word from persons not in authority should never be used.

The final step in making accurate enrollment predictions is the computation of predictions on a grade-by-grade, year-by-year basis. Here

all of the data collected in the steps described previously is merged in a statistical accounting procedure known as the "corrected promotion" method of enrollment prediction.

This method is agreed to by most experts as the most accurate for predicting enrollments. It is easy to see why. The corrections for factors such as changes, migration, births and number of children coming into the school district from new homes, are made for each year in the prediction. The data needed for computation of enrollment predictions by this method includes:

1. An accurate census of preschool and school age children
2. Migration ratios from grade to grade
3. Number of children planning to attend private and parochial schools in appropriate ratio to available facilities
4. Birth rate projection
5. Number of children from new dwelling units being built in the school district.

The use of the corrected promotion method in making enrollment projections makes it easy to keep the projections up to date because it is possible to recompute the projections whenever various factors change. The method yields very accurate projections for a five-year period and when rechecked periodically can be useful in keeping abreast of school needs for a period of 10 years or longer.

Presenting the study

Once the predictions have been made and checked, the board of education should review them carefully to see what changes or innovations are necessary in school planning in that community. Generally, planning is fairly safe if done on the basis of the projections five years hence. This rule holds only if the enrollment five years in the future is not a peak enrollment. *Predicted peak enrollments should definitely not be used for planning new facilities.* The reason for not using peak enrollments in planning new facilities is because of the possibility of building additional school facilities that might not be needed when the peak passes. Where there are contingencies, i.e., things that might influence the projections but are not certain, alternate plans should be developed by a board of education to insure flexible planning.

The procedures outlined above are fairly sophisticated and call both for skill and experience on the part of those who will make the population study. Where members of the school board and school administrators are unfamiliar with these techniques, they can go badly amiss in the collection as well as interpretation of data.

It is here that the professional consultant can be of great use—in planning the study, in supervising, if necessary, the collection of data, and in interpreting the data. Such consultant services are available from a number of sources.

Most large universities will have a bureau or center of school services. There are educational consulting groups, that provide this type of assistance and, while many of these are located in large cities, they usually service a fairly wide geographic area. These consultants can be contacted through a telephone call or letter to the dean of the school of education of the local university or to the director of a private consulting firm.

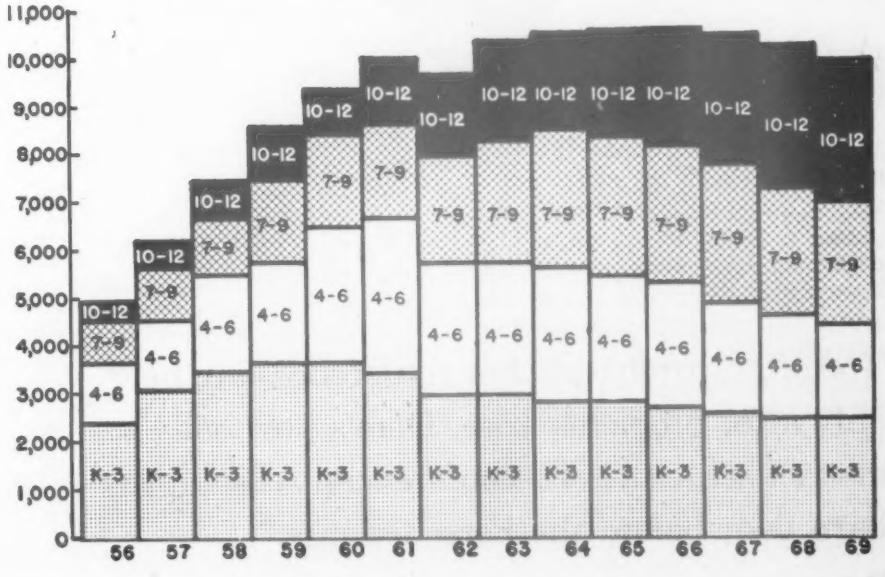
Consultants are usually available on a per diem basis. Not *all* school districts will require this type of professional help but, for many, advice from professional consultants, if only to check proposed study plans, will result in considerable economy in time and cost as well as in more reliable results. It might be argued that the use of competent professionals in the planning and direction of such a study is often one way to remove the issue from the area of local politics.

The enrollment predictions should be distributed to various members of the school administrative staff so that they can use the predictions as the basis for future planning in their particular areas.

And probably most important, the public should be informed about the enrollment predictions through all available information media. Newspapers, meetings, brochures and pamphlets can all be used. If volunteers have been used in taking the census, the citizens will probably be anxiously awaiting the predictions. Certainly, if there has been controversy about the need for new school facilities, the community will be eager for any information that would have a bearing on this need. Pictorial methods of explaining the predictions and the impact of the predictions on school building needs should be used. Graphs and charts like those illustrated plus pictograms and photographs can be used.

Finally, do not use weighty statistical terms or language in telling the public about the predictions. The voters must *understand* the predictions if they are to support a program based on them. **End**

This easy-to-understand chart is one way to present school enrollment by grade level projected over a period of years. Peak enrollment comes in 1966.



Are your parent-teacher conferences worthwhile?

Too often parent-teacher conferences are held only after problems arise. Here's how one district structures its conferences to "slam the barn door before the horse escapes."

■ ■ ■ Few teachers or administrators deny the usefulness of parent-teacher conferences. They welcome them, in fact, as a means of ironing out the difficulties of "problem" students. Such meetings are the order of the day in most schools when direct, verbal contact with parents seems called for.

But scheduled conferences, held regularly throughout the school year, are another matter. Since they are conducted whether a student seems to need them or not, many schoolmen—particularly teachers—do not consider them worthwhile. They object to them because they are time-consuming, and because they entail additional preparation and close attention by people already burdened with the mass of detail work encountered in normal school routine. "Why," they ask, "go to all this extra trouble for children who are progressing satisfactorily, when the time and effort could be better spent on kids who really need help?"

Pelham, N. Y. has an answer to that one. Two years ago—after an 18-month study by parents, teachers and school administrators—it began a formal program of regularly-scheduled, planned parent-teacher conferences. In this tape recorded interview, Radcliffe Morrill, superintendent of schools, describes how the program was introduced, how it functions and how it has benefited all of the youngsters enrolled in Pelham's schools.

Q. Conferences between parents and teachers are a generally accepted practice in most school systems, Dr. Morrill. Why have you felt it necessary to formalize your conference program in Pelham's schools instead of leaving the supervision of it to the building principals?

MORRILL: We felt that we could provide better for the individual differences of all children if we could hold regularly-scheduled conferences at which both the parent and the teacher could make a coordinated contribution to each child's progress in school. We wanted to

break down the idea that the conference was needed only when a problem arose in relation to the child. We were looking for a kind of "preventive maintenance," and also for a method of getting the best from non-problem kids.

Q. But isn't there a tremendous amount of unnecessary administrative detail—and parents' and teachers' time—involved in setting up such a formal program?

MORRILL: If we're going to try to meet the individual differences of each student, we must know more about him than we can profitably discover in a classroom of 20 or 25 other children. When we sit down with a parent we get to know a lot more about Johnny. Is Johnny a very outgoing, aggressive individual at home, or is he quiet and withdrawn? Often, we've discovered that a very aggressive youngster in school is not aggressive at all at home and vice versa. This helps us know what we can do to help draw the child out in school. Then there's the case of the under-achieving bright child. When a child is consistently getting all A's, he's merely at the top of our marking system; we don't know that he's at the top of his ability to achieve. While a lot of youngsters get A's because the work they do is relatively superior to the work of other children, they actually may be doing B or C work in terms of their capabilities. But now you become involved in a beautiful problem in reporting. We cannot down-grade a bright child who is doing excellent work but is not putting out much effort. But we can point out to the parent, during a conference, certain areas that might be well worth exploring in terms of the child's ability. We can suggest that both parents try to encourage the child in an area that seems to appeal to him. We can suggest, too, that the child be encouraged to do extra work beyond that required for regular class, in these areas. So, we need sometimes to go beyond a simple grading system, and this conference program makes that possible.

Q. But couldn't this kind of thing be accomplished without the conference?

MORRILL: You could report, for example, that the child doesn't read as widely as he should. But what does that mean to the parent? You haven't helped him persuade the child to read more widely. You haven't provided the parent with a guide to the sort of books he should suggest. You haven't informed the parent about the child's interests in school. These are areas that can be covered properly only through a regularly-scheduled, planned, face-to-face conference.

Q. You're in a "favored" community. Do you think its social and economic level accounts for the success of your formal conference program?

MORRILL: Very definitely so. If the educational background of parents is high, there is an even greater opportunity to establish understanding. But I don't think this affects the tremendous value of this kind of conference. The important thing is to get the parent and the school working together in educating the child. This is a cooperative project, as it must be, since a child's education does not take place exclusively in the schools.

Q. How have the parents reacted to your more-or-less compulsory program?

MORRILL: We had some little resistance at first from parents who felt that everything was going all right without the need of taking more of their time and that of the teachers. But the more conferences we've held the more enthusiasm has been generated for them. We've been able to work personally with parents and show them the importance of things other than high grades in academic subjects. If Johnny is having trouble getting along with other youngsters, for example, we can cooperatively work together to help guide him. After all, the child is a product of his family and you cannot help but know the child better if you are aware of the kind of family he comes from.

Q. How are these parent-teacher meetings scheduled?

MORRILL: We close our schools for two afternoons each term. Since we try to allow for at least a 25-minute conference period per child, that doesn't make it possible to schedule all of the conferences for all of the children. But it does take care of about one-third to one-half of the students, depending on the size of the class. The teachers set up the remaining conferences after school hours or during periods when the child may be occupied with physical education, music or art, when the classroom teacher is free to sit down with parents.

Q. Doesn't that mean, generally speaking, that only mothers attend the conferences?

MORRILL: Some of the fathers do come but we see more of the mothers. I hope it will be possible, some day, to hold a conference session in the evening—every year or once in two years—so that the teacher can sit down with the father and mother together. Of course, our teachers do meet with both parents at our regular PTA evening meetings, but this does not afford the close personal contact needed.

text continued on following page

"We wanted to break down the idea that the conference was only needed when a problem arose."

"We send a guide home to parents to help them in the conferences"

Conference guide distributed to Pelham's parents

Before sitting down with teachers, parents in Pelham, N. Y., are given a conference guide designed to help them get the most from the meetings. Carefully phrased, prominently displayed, the purpose of the guide is given first in a box at the head of the guide. It is followed by a series of questions and suggested discussion areas.

This guide is intended to serve as a convenience. It is solely for your use. You are invited to select from the topics suggested those which are most important to you.

1. *How does your child enjoy going to school? What does he say about school, his teacher, other children? Does he tell about what he does in school? What activity or subject does he like best?*

2. *What does he like to do at home—his favorite games and pastimes? Who are his best friends at home and in the neighborhood?*

3. *Is his social life outside of school a happy one? Does he invite playmates to his home? Does he visit them?*

4. *Does he have some responsibilities at home such as putting away toys, dressing himself, helping if he can in many ways? Do his responsibilities increase with his age? How does he meet these responsibilities?*

5. *How does he react to discipline or authority?*

6. *Does he have regular sleeping habits, does he rest well? Are his eating habits good? Does he dress himself? Is he aware of danger or dangerous objects?*

7. *Does he have any special interest or talent in art, music, storytelling, dramatic play, or collecting objects that would help us to guide him at school? How are these fostered at home?*

8. *Are there some things about your child we should know? Have any new developments taken place? Is there any pertinent information you wish to give the teacher? Do you have any special ideas to help in guiding or developing your child in school? Are there any points about which you'd like more information or specialized help regarding your child's adjustment to school?*

Q. Are your PTA meetings well attended?

MORRILL: Well, I can tell you that we have more than 99% membership in our Parent-Teacher Association—that's for all of our schools, both the high school and the elementary schools—and all of our meetings are very well attended.

Q. What about a school district that doesn't have such interested, active parents? How successful would individual parent-teacher conferences be there?

MORRILL: When I was at Concord, Mass., the PTA was not as well represented or as well attended as it is here. We developed a parent-teacher conference program there that was similar to this one, and we had something close to 98 or 99% attendance at those conferences—just as we do in Pelham. The conference is independent of the PTA. They each serve different purposes. One is a private, close discussion of one child by one teacher and one or two parents. The other is a far more general community meeting during which specific facts about individual children are rarely discussed.

Q. Mr. Morrill, how did you implement your program? Were your teachers specially trained to handle these personal, intimate conferences?

MORRILL: Yes. We have had to do quite a bit of preparation and planning. In fact, we spent more than a year with parents, teachers and principals working out this program before it was put into practice. The parent-teachers' guide we prepared is the basic tool for training. It's more than a conference manual. It's also a rather good outline of the things that all teachers should be watching for, and the kinds of problems they may encounter with their children.

Q. What do you tell your teachers about the conference? What does the guide actually guide?

MORRILL: Well, reporting procedures are outlined for the primary grades, and for grades three to six. Within each section teachers are reminded of the developmental characteristics they should look for in each child. In addition, the skills and abilities that add up to academic achievement are listed. Worksheets are provided on which teachers can jot down observations that will help them conduct a carefully planned, thoroughgoing conference with parents. We've even included a list of questions for parents to think about before attending a conference (*see box above*).

Q. Isn't it possible that some parents may consider such questions a

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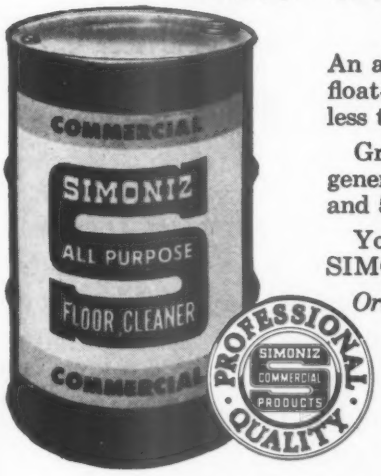

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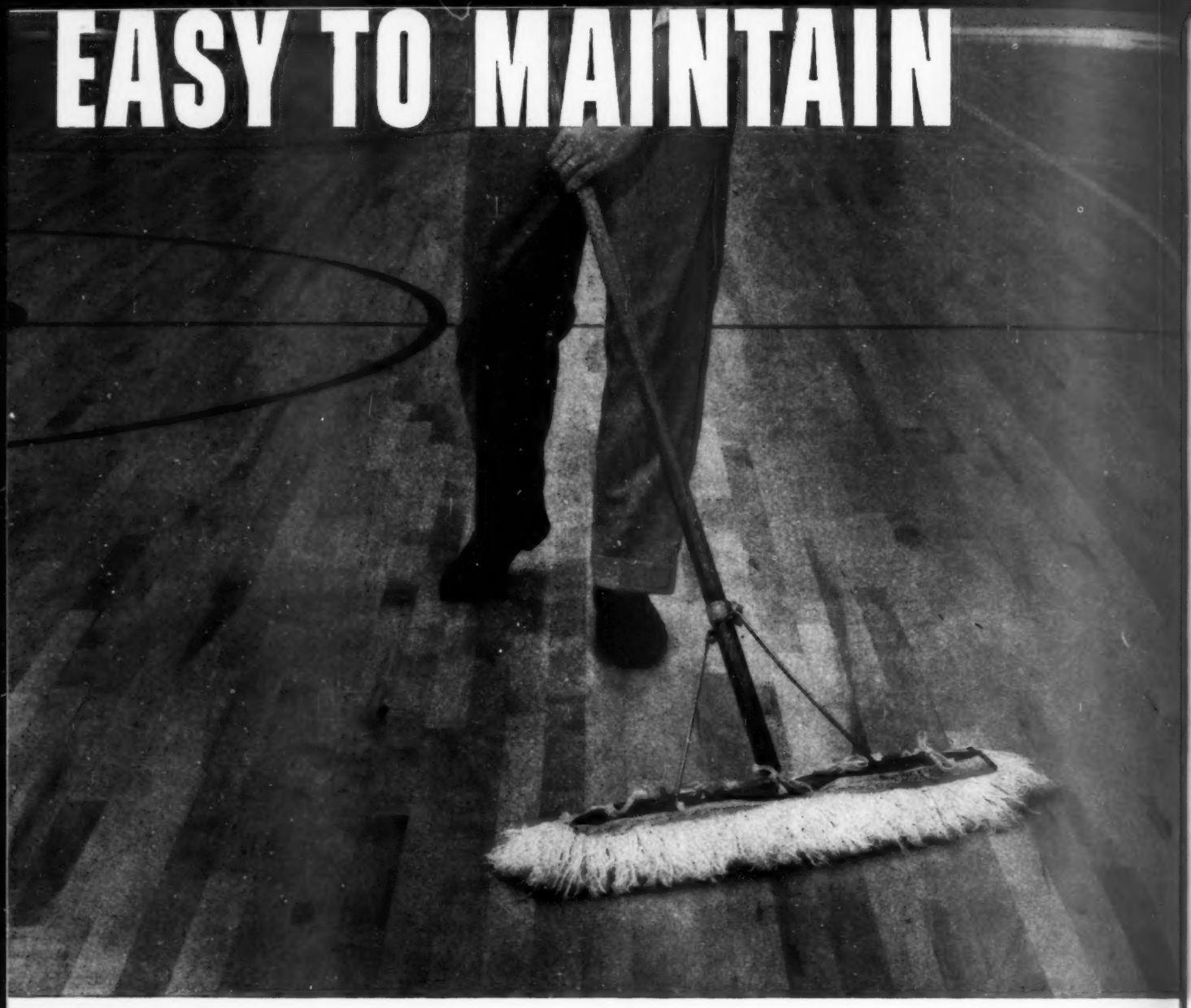

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test of some kind, so they had better be well prepared with their answers?

MORRILL: That is exactly what we wished to avoid. We don't want parents to think they are being brought to school and set before an inquisition. So, we set this statement in a box at the head of the page: "This guide is intended to serve as a convenience. It is solely for your use. You are invited to select from the topics suggested those which are most important to you." Included in the questions prepared for parents are suggestions that they discuss anything they feel has not been covered. They are also asked to speak up if they would like any help of a specialized kind from members of our staff.

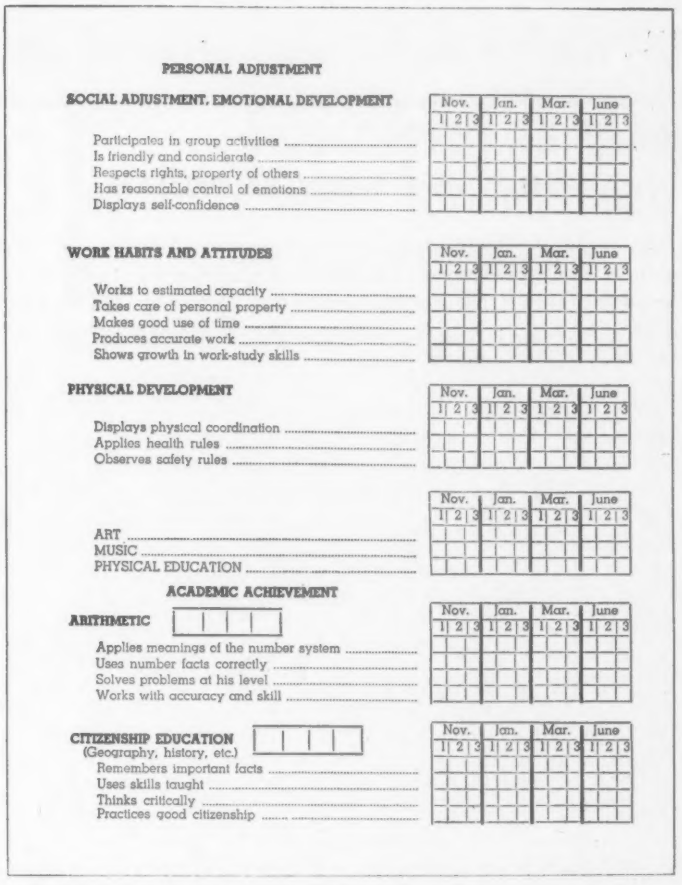
Q. How have your teachers reacted to the conference program? It's quite a chore.

MORRILL: They have been very helpful by being very critical. This is the third year that our program has been in force. When we evaluated it at the end of the first year, some of our roughest critics were the teachers. Their criticisms contributed a great deal to the present success of the program.

Q. Let's go back for a moment to the question of the amount of time devoted to these conferences by the individual teacher. If two free afternoons per term do not allow sufficient time to conduct all the necessary conferences, when do the remaining meetings take place?

MORRILL: While we expect the teacher to be with her class for a good part of the time when the class is working with specialized teachers —art, music, physical education— she can, on occasion, hold a conference with a parent during this time instead of observing. In addition, we're very fortunate to have teachers who are extremely professional. They're anxious to do the best possible job they can and are not sparing of their own time and effort. They will schedule as many after-school conferences as are necessary. They feel that this extra effort is paying off handsomely in terms of the quality of education being provided for the children in our schools.

Q. What about school districts that don't have classes as small as yours and that are not staffed as ade-



PERSONAL ADJUSTMENT

SOCIAL ADJUSTMENT, EMOTIONAL DEVELOPMENT
- Participates in group activities
- Is friendly and considerate
- Respects rights, property of others
- Has reasonable control of emotions
- Displays self-confidence

WORK HABITS AND ATTITUDES
- Works to estimated capacity
- Takes care of personal property
- Makes good use of time
- Produces accurate work
- Shows growth in work-study skills

PHYSICAL DEVELOPMENT
- Displays physical coordination
- Applies health rules
- Observes safety rules

- ART
- MUSIC
- PHYSICAL EDUCATION

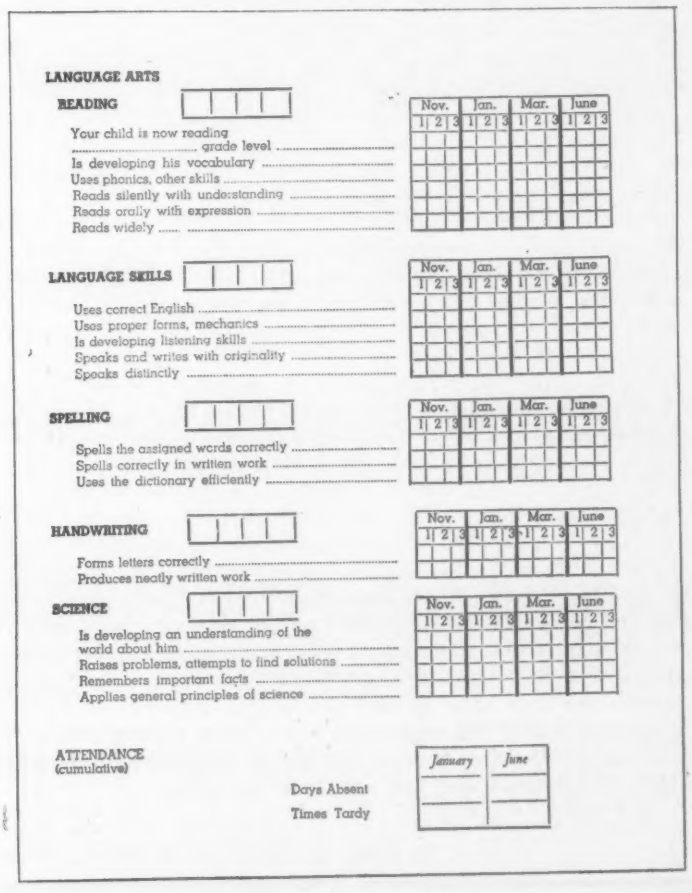
ACADEMIC ACHIEVEMENT

ARITHMETIC
- Applies meanings of the number system
- Uses number facts correctly
- Solves problems at his level
- Works with accuracy and skill

CITIZENSHIP EDUCATION (Geography, history, etc.)
- Remembers important facts
- Uses skills taught
- Thinks critically
- Practices good citizenship

Nov. | Jan. | Mar. | June (1 2 3)

Report cards supplement the parent-teacher conference in Pelham. They are issued four times a year, twice at conferences, at which time they serve as discussion guides. In addition to usual subject grading, work habits, social adjustment and emotional development are marked on cards.



LANGUAGE ARTS

READING
- Your child is now reading ..... grade level
- Is developing his vocabulary
- Uses phonics, other skills
- Reads silently with understanding
- Reads orally with expression
- Reads widely

LANGUAGE SKILLS
- Uses correct English
- Uses proper forms, mechanics
- Is developing listening skills
- Speaks and writes with originality
- Speaks distinctly

SPELLING
- Spells the assigned words correctly
- Spells correctly in written work
- Uses the dictionary efficiently

HANDWRITING
- Forms letters correctly
- Produces neatly written work

SCIENCE
- Is developing an understanding of the world about him
- Raises problems, attempts to find solutions
- Remembers important facts
- Applies general principles of science

ATTENDANCE (cumulative)
- Days Absent
- Times Tardy

Nov. | Jan. | Mar. | June (1 2 3)

January | June

HOW IT'S DONE IN PELHAM

John Hambel, principal, Siwanoy Elementary School and chairman of the report card committee, worked actively on the conference program before and since its adoption. SCHOOL MANAGEMENT's editors asked him these key questions about Pelham's program:

Q. How did you orient your teachers before the program was introduced?
Hambel: Our conference program was implemented through meetings with teachers at which they were given printed sheets and materials explaining how it was to function. A great deal of explanation, done through direct, verbal discussion, resulted in their extremely helpful questions, criticisms and suggestions.
Q. Where do your teachers find the time to conduct these conferences?
Hambel: Our classes are small, so—even with 25-minute conference periods for each parent—we require a smaller number of conferences than would be necessary with larger classes. In addition to the time made available by two half-day school closings per term, teachers with large classes are permitted to engage substitutes to free them for additional conferences when required. And, of course, we expect each teacher to give a few minutes of her own free time on occasion.
Q. Do you ever try to arrange conferences between parents and special teachers in areas like physical education, music and art?
Hambel: Only when problems arise. We must be selective due to the weight of numbers. The special teachers handle all of the children in a school while the regular teacher has only her own class. It just isn't physically possible for the special teacher to have a detailed knowledge of 320 pupils, though she should know a great deal about the few very poor or outstanding ones.
Q. How have the parents viewed your program?
Hambel: We questioned parents, asking for their reaction to the conference reporting procedure. We found they were thankful for having had this special contact with teachers. Almost all said they had learned more about their children's progress.
Q. Just how much can you tell a parent? If you criticize the child, aren't you really criticizing the parent too?
Hambel: If you tell the parents the facts you are not telling them too much. But if you interpret these facts—if you try to double as a psychologist—you'll get into hot water. We attempt, tactfully, to tell the parent what she may reasonably expect from her child. We tell her, generally, that the child is not working to capacity or that he seems to be doing the best he can—all this is indicated, really, on the progress report, too.
Q. Why do you bother with report cards at all?
Hambel: A better and more accurate conference results when the teacher has a guide to work with. The progress report—or report card—serves this purpose very well. While the teacher may not cover, in conference, every single point mentioned on the progress report, she will touch upon enough of them to give a far more accurate picture of the child than she could otherwise do.
Q. How have your schools benefitted from this program?
Hambel: An important side effect of our present reporting procedure is the articulation that now exists between our elementary schools and the high school with respect to the placement of our pupils when they enter seventh grade. We also feel we have a better informed group of parents and a more understanding relationship with them. Most of all, the child profits in terms of better school adjustment and improved education.

quately as Pelham's? Could this conference program work in such districts—with less free time and larger classes?

MORRILL: I think it would be more difficult, but I feel that the kind of contact developed between home and school under this program is well worth any amount of time that must be devoted to it. Personally, I would be in favor of giving over four afternoons each term for conference time if larger classes made this necessary. Now, it is true that when you take an afternoon away from the children, you have two hours of lost time—time that could have been devoted to practice in reading, writing and arithmetic. But how valuable are those two hours of drill if Johnny resents them, or if his parents pressure him unduly about this work in school, or if the teacher is criticizing him without being aware of a disturbance in his home life? More important, it would seem to me, is the teacher's understanding of Johnny and Johnny's relationship with her, the teacher's attitude toward Johnny's home and Johnny's parents' feelings about his teacher. This triumvirate of child, home and school, working together, can provide an atmosphere and an attitude, on the part of all concerned, that will promote Johnny's education far more rapidly than another two hours of drill.

Q. Still, isn't closing your schools a rather unusual practice?

MORRILL: Unusual, but not without precedent. I once taught at Newton, Mass., and there, for the past 20 or more years, the schools have been closed for the elementary grades on two afternoons each week. To the best of my knowledge, unless they've changed things in the last three or four years, they still hold three full day sessions and two half-day sessions per week. The two half-days of free time are used in a variety of ways—perhaps to give a little extra help to a youngster who needs it, perhaps for teacher meetings, perhaps for parent-teacher conferences of this nature, perhaps for curriculum work. The teachers work full time but the children are absent for two afternoons a week. Now, this has been going on for 20 years and Newton

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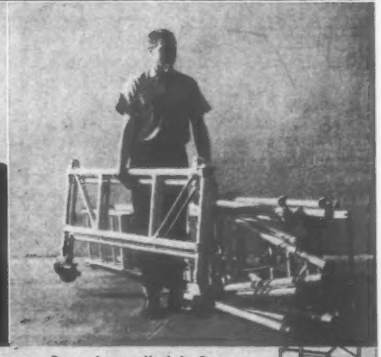

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Q. This applies to the whole elementary school?

MORRILL: Yes, as I understand it, the whole school from kindergarten through grade six. The point is, that it has been done, and done for a long time in a community with a fine reputation for its schools.

Q. What happens when a teacher believes that the cause of a child's school problem lies in the home? Let's assume, for example, that the child's father is too much of a disciplinarian. Does the teacher discuss this with the parent, does she refer it to the principal or the superintendent, or just ignore it?

MORRILL: First of all, it most definitely would not be ignored—something would be done. How it would be handled would depend upon the teacher and the parents. After a conference or two, the teacher can pretty well determine whether or not she has a really close relationship with the parent in question, and whether or not she can speak frankly. Most teachers use pretty good judgment in this respect. The teacher may herself suggest that Daddy take a little pressure off. If she feels that doing so might create even further trouble, she would discuss the matter with her principal first. Subsequently, if the problem warranted it, the school psychologist might be called in, too.

Q. Your principals, then, are available to help with these conferences?

MORRILL: Yes. Each of our principals is a full-time, administrative officer in his school. He supervises about 16 teachers and somewhere between 275 and 375 children.

Q. What happens when the antagonism or lack of interest on the part of the parent is so great that she doesn't bother to come into the school at all? What do you do then?

MORRILL: We can't force them, though such situations seldom occur. In those rare instances when they do, we make every effort to find a conference time satisfactory to the parent. We have had a few cases during the past year when, for one reason or another, the parent could not get to the school. In some of these instances, the teacher went to the home to carry on the conference. Again, I think it would be most helpful if, someday, we can hold conferences in the evening so that both mothers and fathers can come to school and talk to the teachers.

Q. Let's assume now that we are dealing with a very cooperative parent who has willingly come to attend a conference. Just how much does a teacher tell this parent about her child? How candid are you about IQs, for example?

MORRILL: In our district we have felt that we can tell the parents practically everything about their children. We do not promiscuously hand out IQs—not because we don't completely trust the parents, but because we don't completely trust the IQs. We will indicate the child's IQ level—high, average or below average—but we will not use figures. IQs are only an approximate measure of the youngster's capacity for academic work. We feel that misunderstanding can arise too easily from the indiscriminate release of IQ scores. In everything else, we try to tell the parents very frankly all that we know about their children.

Q. Are these conferences exclusively verbal?

MORRILL: No. Four times a year we issue written progress reports, or report cards, to supplement the conferences. Two are issued at the time of the conferences and handed to the parents. The other two are sent home at the end of each term. These reports serve as permanent records of the child's progress for both the parent and the school. The one presented at the conference also serves as a guide for the discussion—and it is something one parent can take home for the other to see.

Q. Do you attempt, in the progress report, to tell the parent what the child's real abilities are?

MORRILL: We very definitely do. While we have not abandoned composite numbers and letter grades that give some indication of a child's progress in a particular subject, we supplement them with reports on his work habits and attitudes (*see illustration, page 57*). Does he work to estimated capacity? Does he take care of personal property? Does he produce accurate work? Does he show growth in work study skills? Does he make good use of his time? Here we can

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Since a sound system can be only as good as its planning . . . it makes good business sense to talk to your RCA Engineered Sound Distributor. For your present building or a new one, he will help you plan a sound system that is low in cost—yet gives you the maximum in safety. Your RCA Distributor is in your classified book under "Public Address and Sound Systems." Call, or write us for further information. Address: Sound Products, Dept. A-110, Radio Corporation of America, Camden 2, N. J.

RADIO CORPORATION of AMERICA
SOUND PRODUCTS CAMDEN 2, NEW JERSEY

Tmk(s) ®

(Circle number 746 for more information)

indicate that he does these things consistently, that he does them satisfactorily most of the time, or that he ought to do better. In every one of these areas we can describe the type of effort he puts forth. In addition, we have attempted to give our parents a picture of the achievements of their own children in relation to the basic skills exhibited by children throughout the country. We employed the Iowa Tests of Basic Skills for this purpose. We prepared a graph that I used in my annual report to the board of education describing the Iowa tests and the 15 different categories in which children are tested. The graphs provide the parents in our community with three separate items of information: the national norm, the achievement of Pelham youngsters as a whole, and the achievement of the individual students on the Iowa tests. This device gives the parent a graphic picture in broad terms of what his child is achieving at his grade level.

Q. What if the child is shown to be incapable of standard work? How does the teacher handle this situation?

MORRILL: I think we pretty frankly, but tactfully, try to point out to the parent that at the present time the child is demonstrating that he is weak in academic ability. Sometimes this results in the placement of the child who is very, very low in a special class.

Q. Does the teacher ever anticipate a problem like this and request that you, the principal or the school psychologist sit in on the conference, or are these conferences strictly parent-teacher?

MORRILL: I would say that the ones we're talking about are strictly parent-teacher, but I would hate to leave the impression that these are the only conferences we have. There are some parents who may have seven, eight and nine conferences about their children during the year. These conferences may be attended by the parents, the teachers, the psychologist, the principal or any combination of these.

Q. Is the child ever present at a parent-teacher conference?

MORRILL: No, he is not. The child knows pretty well beforehand what the teacher is going to tell the parent about his academic progress and his general citizenship and behavior in class.

Q. Do you stop your parent-teacher conferences at the elementary school level?

MORRILL: We don't stop them, though they're not continued on a formal, scheduled, twice-a-year basis. In the high school, the average teacher handles 100 to 125 youngsters. The child, instead of having one teacher responsible for most of his academic progress, may have four or five teachers. The sheer weight of numbers makes our elementary school conference program impossible in high school. This is where our new guidance program takes over. Every high school student has a guidance counselor, and we are now developing a program which will allow for a personal conference once a year with the parent of every child. This is in addition to the special conferences that may be called by classroom teachers when either the parent or the teacher has questions to ask regarding the child's progress. **End**

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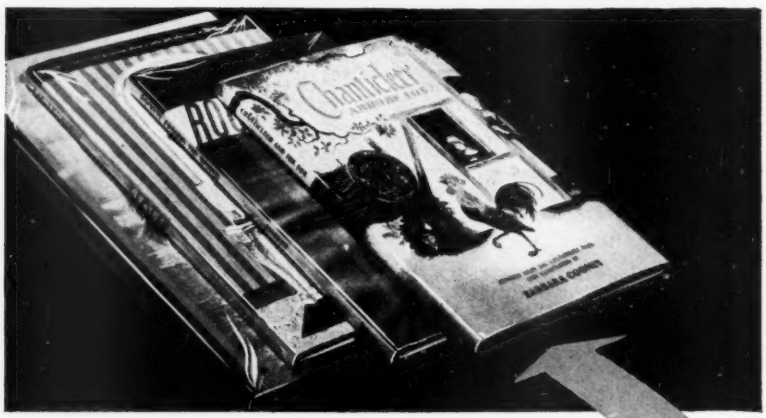

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*Your Name*_____

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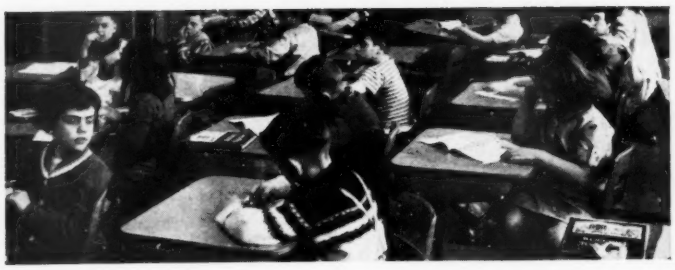
(Circle number 738 for more information)



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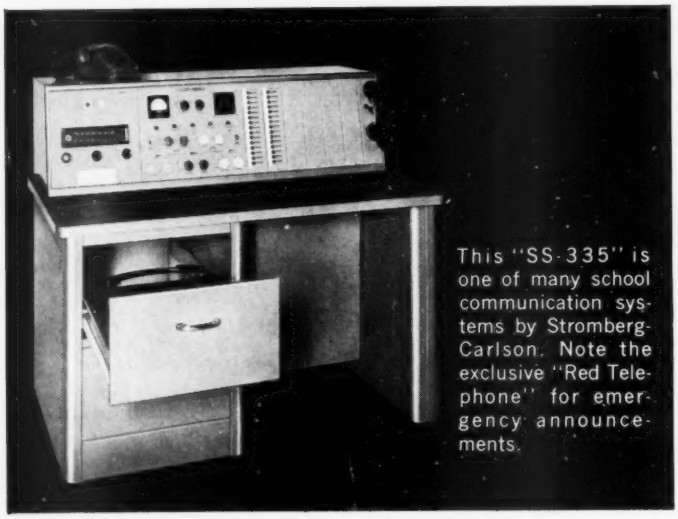

This "SS-335" is one of many school communication systems by Stromberg-Carlson. Note the exclusive "Red Telephone" for emergency announcements.

From the central control console of a Stromberg-Carlson school communication system, you command a wide range of educational services. A few examples: current events and educational radio broadcasts • high-fidelity music broadcasts and reproduction for music classes • educational television features • classroom assembly programs.

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EXPLORATIONS IN EDUCATION

On kindergarten assignments based on age alone

On self-study programs

On multi-grade classes at the intermediate level

The following case histories were submitted by readers in districts where schools are better utilizing staff, space or time. They are presented as part of a joint project with the Teacher Education Committee of the Massachusetts Association of School Committees.

KINDERGARTEN PUPILS ASSIGNED SOLELY ON THE BASIS OF AGE

VARIOUS METHODS are used to assign children to first grade sections. Some administrators may assign them in the order they were registered for first grade. Others may assign them according to parents' wishes. The alphabet is used as frequently as any method. Mental maturity and reading readiness tests or a combination of both are also popular.

Our school system, Red Land in Pennsylvania's York County, divides the children by age. This gives us a sound basis for assigning children homogeneously. It is based on the known factor of age. The younger children are kept together as are the older ones.

In any first grade there are five-year-olds and six-year-olds. You have those children that were one day too young last year and those that are barely old enough to enter this year. This difference of a year may be 20% of their lifetime. This, of course, means a great deal in terms of social, physical, mental development. It is grossly unfair to expect children with these differences to accomplish the same amount of work in the same period of time.

The children in our younger group are not under pressure to complete a certain amount of work before they are promoted to the next highest grade. The teachers, parents and administrators accept the fact that they are younger and are not able to progress as fast as their older classmates.

The younger children have a longer period of reading readiness. These children are given an intensive pre-reading program with special emphasis on language development. The listening and speaking skills are emphasized. The youngest group does not begin to read until after the middle of the school year.

The children in the older group are able to move faster and cover more advanced material. We have found on the Stanford Achievement Tests that the older group always has a grade placement of 2.1 or 2.2 at the end of the first grade, while their younger counterparts on the same test usually rank between 1.7 and 1.8. Our experience has shown that at the end of the fourth grade both sections are about even in achievement.

Each teacher presents a different program, consequently parents of the children in different sections are not comparing the progress of the various sections. Since each program is set up for different purposes, there should be no comparison. The procedures are different and so are the results for the first few years.

We keep our younger group smaller so that the teacher may develop these younger children. These children need more individual attention and more catering to their whims. They are more immature and hence need the close attention we give our youngest.

Reported by Harry B. Gorton, Principal, Red Land Elementary Schools, York County, Etters, Pa.

SCHOOL DISTRICT LAUNCHES FIVE-YEAR STUDY OF ITSELF

THE EVANSVILLE, IND., schools are now in the second year of a five-year self-evaluation program that may result in completely revised curriculum and instructional practices.

Under the plan, groups in local schools, districts—one high school and all its feeder elementary schools—and the city, are meeting to evaluate curriculum in each of five areas.

First area to come under surveillance was language arts and foreign language. Studies were launched a year ago in each of the city's 41 schools, with every teacher connected with any phase of the language program being asked to fill out a questionnaire on work.

The questionnaires were used as the basis for district and city-wide meetings that hammered out an improved curriculum in the areas under study. A steering committee including teachers, administrators and language specialists, did the major spade work.

The new program was presented to, and revised by,

EXPLORATIONS IN EDUCATION

continued

the system's teachers during a two-week summer workshop held after school closed last June. The workshop sessions lasted until 2:30 every afternoon and teachers were paid $10 per day for attendance.

During the current school year attention is being focused on the mathematics and science curriculums. Social studies will be scrutinized during the program's third year and fine arts and business education will be studied the fourth. Current plans call for the fifth year to be devoted to a study of the industrial and practical arts, physical education and health and safety instruction.

According to Superintendent Ralph Becker, the self-evaluation program should lead to a greater evenness in teaching without stifling new and good ideas, since each teacher will have the opportunity to contribute her best ideas to the whole group.

Even more important, perhaps, is the way district meetings have helped elementary and high school teachers understand each others' objectives and problems and have caused them to seek solutions jointly.

Reported by Superintendent Ralph Becker, Evansville, Ind.

MINNEAPOLIS SCHOOL TURNS TO THREE-GRADE CLASSROOM

THE METHODS of the one-room country schoolhouse are being tried out in the metropolis of Minneapolis during a one-year experimental program.

Children from three different grades—three, four and five—are being taught in a single room by a single teacher. About 25 students are involved.

The idea is partly based on some research in "intra-age grouping" in a Los Angeles suburb, where it was found that classes composed of fourth, fifth and sixth graders did work superior to that of single-grade classes.

It is hoped that the teacher of the three-grade combination will be able to work with each child at his particular level in the subject under study—instead of being rigidly confined to work on a single grade level.

Reported by Arthur J. Lewis, assistant superintendent for elementary education, Minneapolis.

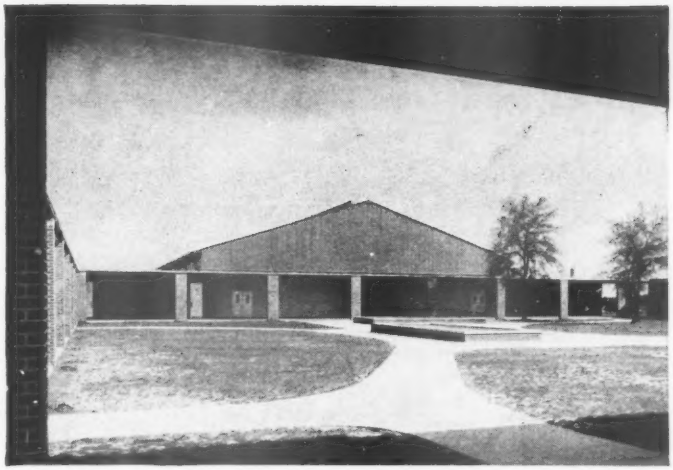
Here's what we're doing in our district

SUBMITTED BY _____ TITLE _____

SCHOOL DISTRICT _____

ADDRESS _____ CITY _____ STATE _____

RETURN TO: *Explorations in Education • School Management • 22 W. Putnam Ave • Greenwich, Conn.*



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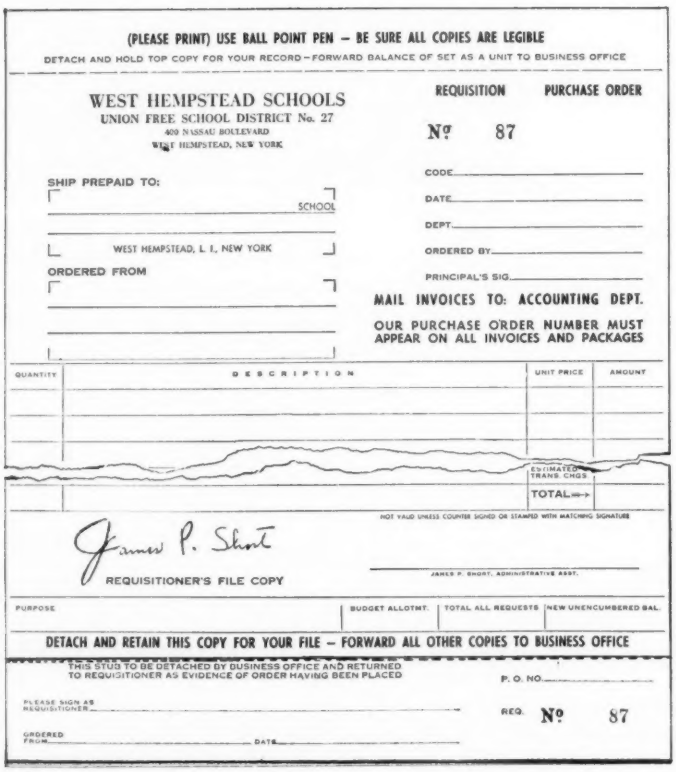
(Circle number 706 for more information)

How to speed your purchase order system

By JAMES P. SHORT
Administrative Assistant, West Hempstead, N. Y.

Here is a simple plan that eliminates excessive delay and relieves your staff of multiple "paper-shuffling" on every purchase order.



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DETACH AND HOLD TOP COPY FOR YOUR RECORD – FORWARD BALANCE OF SET AS A UNIT TO BUSINESS OFFICE

WEST HEMPSTEAD SCHOOLS
UNION FREE SCHOOL DISTRICT No. 27
400 NASSAU BOULEVARD
WEST HEMPSTEAD, NEW YORK

REQUISITION PURCHASE ORDER

No. 87

SHIP PREPAID TO:
SCHOOL
WEST HEMPSTEAD, L. I., NEW YORK

ORDERED FROM

CODE
DATE
DEPT.
ORDERED BY
PRINCIPAL'S SIG.

MAIL INVOICES TO: ACCOUNTING DEPT.

OUR PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES AND PACKAGES

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
		ESTIMATED TRANS. CHGS	
		TOTAL →	

NOT VALID UNLESS COUNTER SIGNED OR STAMPED WITH MATCHING SIGNATURE

James P. Short
REQUISITIONER'S FILE COPY

JAMES P. SHORT, ADMINISTRATIVE ASST.

PURPOSE	BUDGET ALLOTMT.	TOTAL ALL REQUESTS	NEW UNENCUMBERED BAL.

DETACH AND RETAIN THIS COPY FOR YOUR FILE – FORWARD ALL OTHER COPIES TO BUSINESS OFFICE

THIS STUB TO BE DETACHED BY BUSINESS OFFICE AND RETURNED TO REQUISITIONER AS EVIDENCE OF ORDER HAVING BEEN PLACED

P. O. NO.

PLEASE SIGN AS REQUISITIONER

REQ. No. 87

ORDERED FROM

DATE

An original and five copies are prepared at one writing on these sensitized purchase order forms. Multiple handling has been eliminated.

■ ■ ■ In most school systems, there's an excessive amount of paper-shuffling when a school requisitions an item to be purchased.

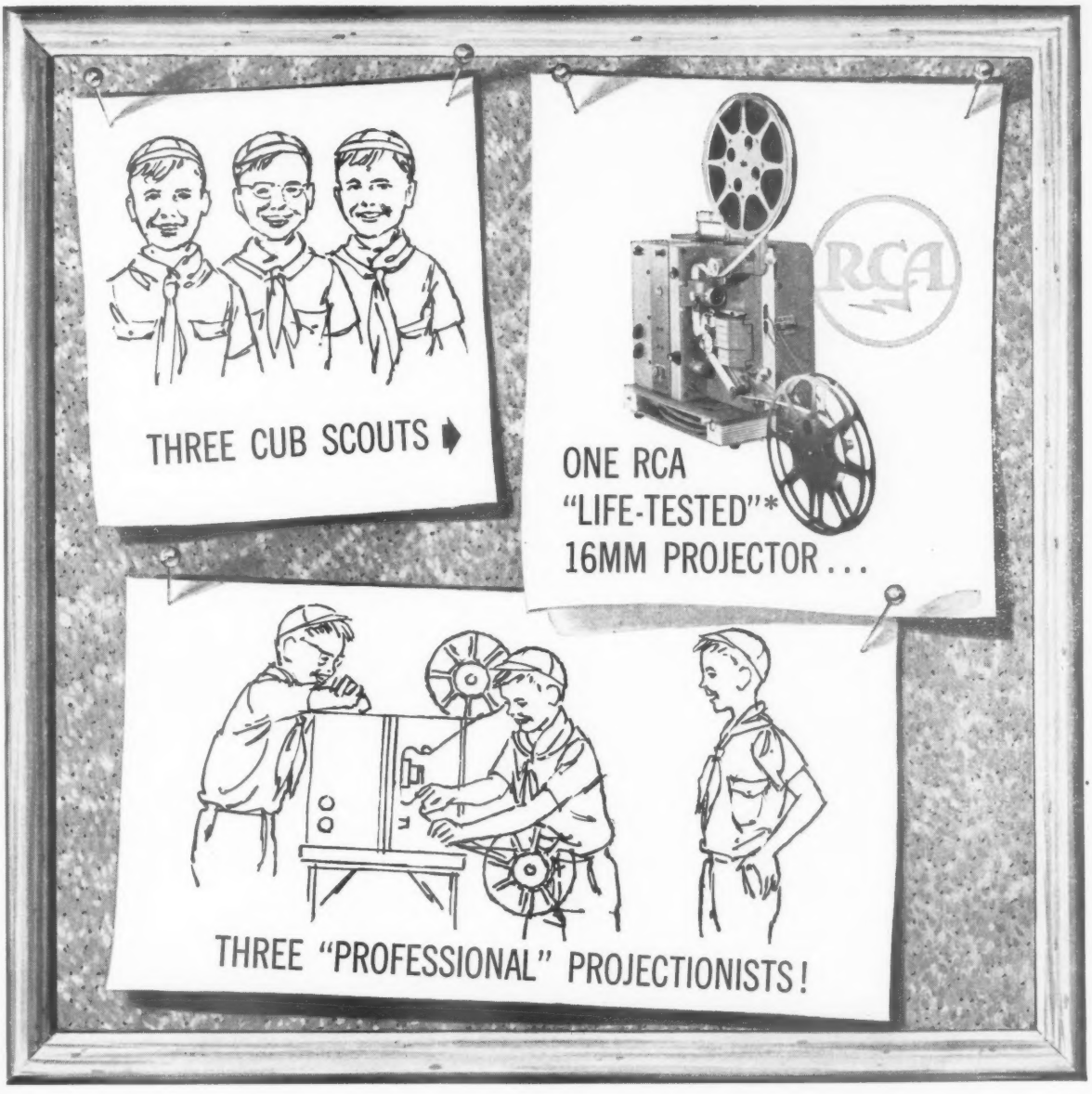
For example, under our old system, department chairmen or principals had a secretary type out a requisition which listed the name and address of the vendor, the description and quantity of the article desired, and the price, if known.

This requisition was submitted to me, as business manager, for signature and approval. After I checked the requisition for accuracy, proper code, item included in budget, etc., I then sent it to the accounting department. My head accountant checked encumbrances and, in turn, passed it along to an account clerk. The account clerk would now type the purchase order. I might add that there was usually a time lag in typing purchase orders due to pressure of other high priority work.

When the accounting department finished processing the purchase order, it was sent back to me for signature. After signing, it again went back to the accounting department for mailing to the vendor. Copies were also forwarded to the principal or department head and receiving clerk.

Here was a clear-cut case of wasted effort. Everyone, including myself, was handling and processing the same set of papers twice and, in some instances, three times.

The delay in getting out purchase orders was, as you can imagine, most bothersome. Why should a secretary type a requisition which will later have to be retyped in the accounting office? Why couldn't she



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"Life-Tested"* 16mm Senior Projector

Easiest, fastest film threading in the 16mm field, operation quiet as a whisper, uses 1200-watt lamps to throw 20% more light on screen, separate loudspeaker for large areas.

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See, hear, and *operate* them at your RCA Audio-Visual Dealer's . . . or have him come to your school and demonstrate. Look for his number under "Motion Picture Equipment and Supplies" in your Classified Directory.

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just as easily type both at the same time?

Realizing the waste inherent in a system of this sort, we looked for a method of purchase orders that would eliminate double-effort and at the same time produce all the safeguards needed.

The solution we found was a prepared pad of sensitized forms that required no carbons to make copies. Using this "snap out" form (*see sample form on page 68*), we are able to produce an original and five colored copies with a single writing. This satisfies our need for safeguards and also speeds ordering, since nobody handles forms more than once.

Under this system, the secretary for the department head makes out the requisition and purchase order at the same time. The requisitioner retains the original for his file and forwards the remaining complete set of five carbons to the business office. I look the order over carefully and, if it is all right, sign it and forward it to the accounting department. The accounting department checks the encumbrances, snaps off the vendor's copy, and inserts it in a window envelope for mailing. This is usually done the same day it is received. The perforated tab at the bottom of the snap-out form is detached, dated, and sent back to the requisitioner, which tells him the exact date his order was placed.

A blue copy is sent to the receiving clerk and a pink copy is submitted to the principal. The accounting department retains the other two carbons, filing the yellow one alphabetically by vendor and the orange one numerically.

The printing of these forms was done locally and cost $203 per thousand. This cost is high because our printer had to arrange the proper set-up and submit a dummy before we gave him the go ahead, and we only ordered a thousand to start with. Subsequent orders, in greater quantities, will cost less.

We have built in one other safeguard for this system. My signature is printed on the forms and a matching signature must be put on the purchase order before it can be honored. In the event that I am away or on vacation, the head accountant passes the orders through by using a rubber stamp facsimile. This makes it impossible for unauthorized personnel to send out purchase orders. **End**

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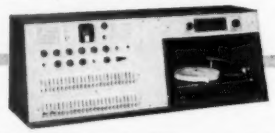
Intercom—permits 2-way conversation with any or all rooms

Special Features—Emergency Switch; all-call; signal clock provision; telephone intercom; remote control, etc.



RAULAND SYSTEMS are available with capacity up to 220 classrooms. RAULAND Public Address equipment is also available for athletic field coverage.

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☐ Send full details on all RAULAND School Sound Systems.

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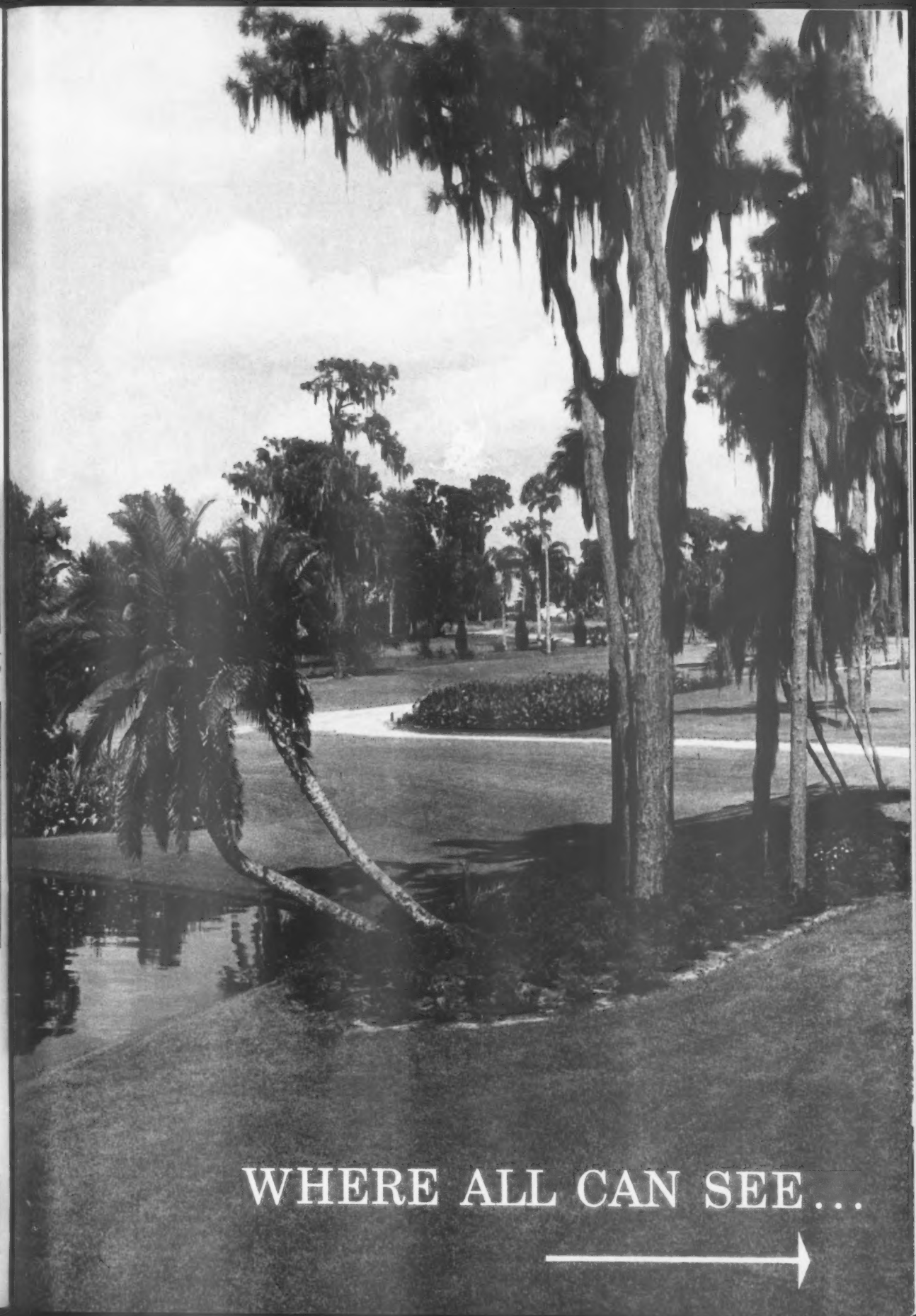
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A RESEARCH STUDY reveals that 52% of elementary school children average 1.8 physical defects per child which can be prevented. The number one contributing cause in the classroom is shown to be improper seating.

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With the facts out in the open, you can prevent physical defects due to improper seating—before they happen. Your American Seating representative can quickly demonstrate *all* the facts in the privacy of your own office or school at your convenience. Call him soon. He offers the greatest experience in the school-furniture industry—along with quality that costs no more. For free booklet, *The Facts about School Furniture Today*, write: American Seating Company, Grand Rapids 2, Michigan.

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No matter what type of furniture you select from American Seating's complete line, you can be sure of the greatest values in every price range. Shown are Classmate Open-Front Unit Tables with matching teacher's desk, round table, and two-pupil table. Photographed at beautiful Florida Cypress Gardens.

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cts bout school furniture out in the open

You can provide group seating in a wide variety of combinations with tables and chairs from the American Seating Classmate line. Shown above: Multi-Pupil Tables, Round Tables, matching teacher's desk.

A message for you

A lot of credit for a smooth-functioning school goes to having the right furniture in the right place at the right time.

Kindergarten is a case in point. You need a continuous working surface for simple manipulative tasks. That's where the American Seating Multi-Pupil Table is the ideal choice. It comes in sizes ranging from 2′ x 4′ to 3′ x 6′ with adjustable heights. Pedestal standards provide free foot and leg room. And the aluminum-banded Amerex® plastic top is practically indestructible.

Because this table comes in heights up to 30 inches, you'll find it turning up in school cafeterias and restaurants, libraries, and dormitories.

Yet it's only one type of furniture among dozens *you* need to know about to have the right kind in the right place at the right time. Our booklet, *The Facts about School Furniture Today,* takes the guesswork out of choosing. Drop us a card for your free copy.

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The standard by which all other public seating is measured

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Put your school program on commercial TV

By JAMES Y. MOULTRIE,
Director of Instruction, Muscogee County School District, Columbus, Ga.

Almost any local television station will donate public service time for experimental projects in education. Here's how Muscogee County, Ga., uses commercial television to enrich its schools' teaching program.

School officials in Muscogee County, Ga., are using local commercial television to strengthen their educational program.

Stimulated by the enthusiasm and skills gained by two teachers chosen to attend a television workshop sponsored by the state department of education last year, school administrators approached two local television stations, WRBL-TV and WTVM, about the possibility of obtaining public service time for educational purposes. Each of the stations willingly contributed daily time slots of 15 minutes.

The two trained teachers were released from other duties to allow them to prepare and present their television lessons—one in music and one in Spanish. These fields were chosen because of the potentialities for enriching the existing school program through television.

The regular program in music called for special teachers to get around to classrooms once each week, and sometimes less often. The prospect of each pupil having music almost daily by television, along with the

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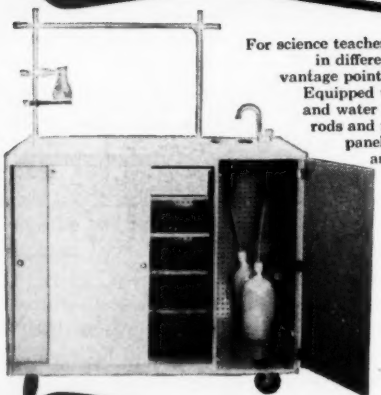

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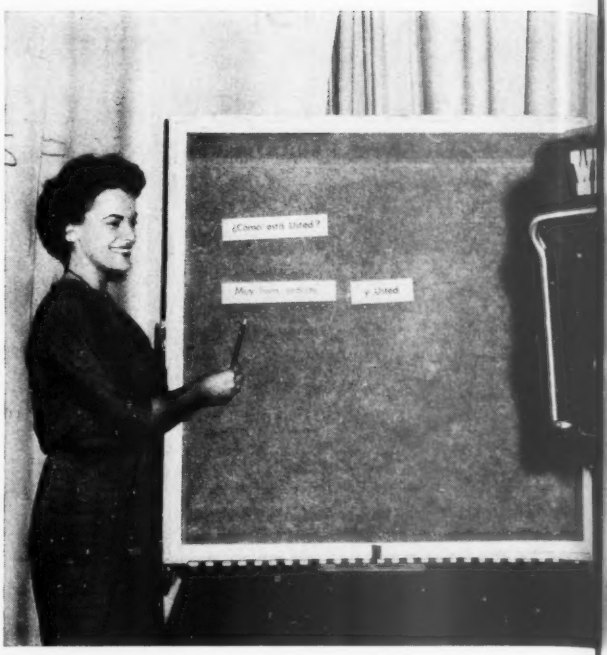


Daily Spanish lessons are now available to both elementary and high school students in Muscogee County via a 15-minute time slot contributed by a local TV station.

visits by special teachers, was exciting. The regular program called for foreign languages in the high school grades, but none for elementary pupils. Television offered the opportunity to provide foreign language experiences for elementary children, as well as an enrichment activity for high school language classes.

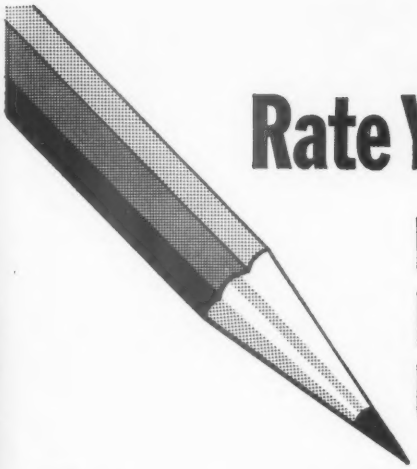
How the TV lessons are taught

The time slots on each television station are divided between the two teachers. While one teacher performs at one station, the other is performing at the other. The music classes are aimed at two levels—primary and upper elementary. The by-line for one program is "Music Made Easy," the other is "TV Music Time." The Spanish lessons are also aimed at two levels—beginning Spanish for elementary pupils, and conversational Spanish for upper grades and adults. The Spanish by-lines are "Ninos—Spanish for Young People," and "South of the Border."

The two television programs have also presented opportunities to use resource people from both the school system and the community. Regular teachers have appeared as guests occasionally and for substitute programs. Visitors with special talents have helped to enrich the programs and demonstrate relationships between subject areas.

Response to these programs has been most encouraging from laymen and schoolmen alike. Schools in outlying areas, where special music and language teachers are not available, are enthusiastically receiving these programs. Parents have even reported changing their lunch schedules in order to be at home for the Spanish and music lessons. Parent-teacher groups have pitched in with projects to provide television receivers.

Problems of coordination arise occasionally though



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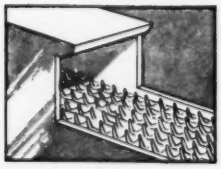

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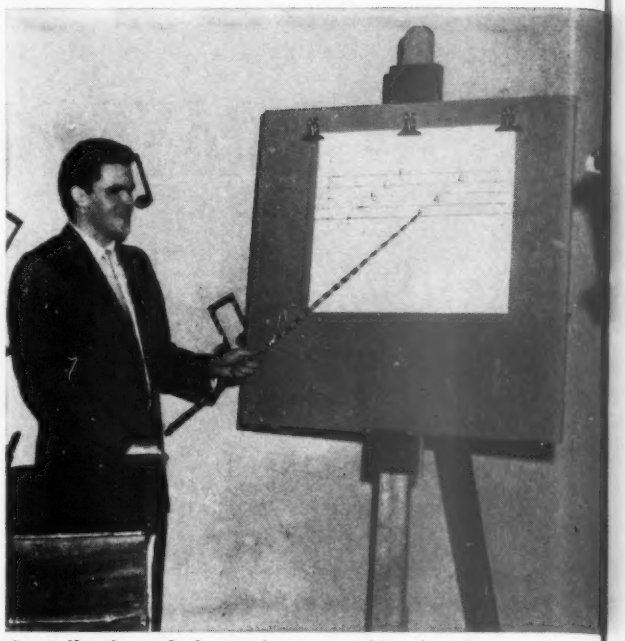

Contribution of air time by a second local station permits daily music instruction to supplement the less frequent visits of special music teachers to the schools in the district.

none prove insurmountable. Study guides for lessons need to be prepared in advance and art work for visuals becomes an important item. Substitute programs for days when the regular teacher is absent need to be planned. Continuity in programming for pupils who tuned in late presents a problem, too. The correct pacing of lessons along with appropriate review techniques represents a constant challenge to the teacher.

Results of experiment

Some of the conclusions drawn from this experience with organized instruction by television, follow:

1. Television can be used to advantage in enriching educational experiences for children.

2. Talents of superior teachers can be utilized for larger numbers of students through this medium.

3. Resource persons can be made available for more pupils due to economy of time.

4. Parents have a better understanding of the objectives of education after watching the programs on their home television screens.

5. Satisfactory programming requires close coordination.

6. Classroom teachers must be brought into the planning and evaluation in order to prepare pupils in advance and to initiate appropriate follow-up activities for them.

7. An adequate budget is necessary for props, visuals and art work.

Teachers and school officials of the Muscogee County School District are enthusiastically planning ahead for more effective use of educational television. Their plans include wider use of commercial stations, the development of a state-wide educational television network, and dreams of a local station as a part of this educational network. **End**

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**Source: NEA Research Report, 1958, R-6.*

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Published by School Management Magazines, Inc., 22 W. Putnam Avenue, Greenwich, Conn.

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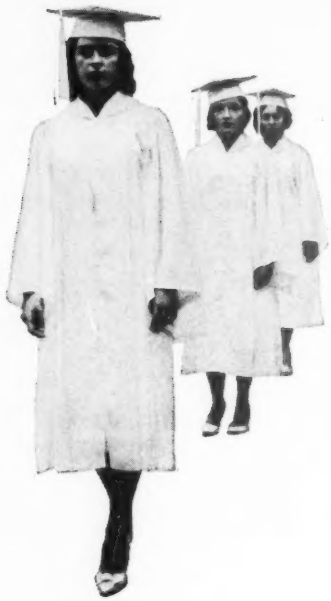
How to manage a graduation



Preparation for graduation should start in November if last-minute confusion is to be avoided. Here's a step-by-step account of how one high school minimizes the problem by careful pre-planning.

■ ■ ■ For high school principals and faculty members, preparation for graduation exercises is often a nightmare. Rehearsals come just when everyone is preoccupied with study for final exams. Cleanup comes after school is over. Caps and gowns must be delivered, fitted and finally returned.

A man with a plan

Edward S. Assmus, principal of Nutley, N. J., High School, has been conducting impressive graduation ceremonies for seven years with virtually none of the usual confusion. His method is based on three "rules": Complete student participation in planning and programing; limited faculty responsibility except for supervisory chores, and use of a clearly thought-out analysis of the ceremony concisely set down as a single page of written instructions.

The first two points of Assmus' approach are closely inter-related. Maximum student participation requires close and detailed faculty supervision. A system had to be devised whereby teachers could give the time needed, and still not be overburdened during the busy period of class matter reviews, final exams and term end reports.

Mr. Assmus decided this could best be accomplished by using more, rather than fewer, faculty members —but on a rotating basis from year to year. Between 15 and 20 teachers have graduation assignments each year. In this way, no one teacher has too much to do. Coordination is accomplished by organizing the details of the ceremony into four general sections and permanently assigning a "supervisor" to each. Assmus has the responsibility for the final coordination of the entire program.

The four sections of the Nutley graduation preparation are: student speeches, under the supervision of the English department head; processional, recessional, seating and other physical arrangements, under the dean of boys; caps and gowns, handled by the sewing instructor of the industrial arts department; and choral singing, under the head of the music department.

Student speakers

The advantages of this system are demonstrated by the ease with which Nutley graduation speeches are arranged. No outside speakers are ever used. Instead, members of the graduation class carry the speaking assignments for the evening. A student, the class president, even presides at the ceremony. In all, six brief talks are given. The program is planned so as to have every two speeches followed by a choral selection.

Each of the six student speakers is assigned his or her own faculty advisor. This gives the student the benefit of individual attention—and as much of it as may be required.

At the same time, this assignment is not a great burden on any one faculty member. No teacher works with more than one student.

The head of the English department meets with the speakers and their advisors once to help them decide on a theme for the talks. All speeches are submitted to him for final approval well in advance of the ceremony. He then coaches the students and the class president in their presentations.

Caps and gowns

Measuring and ordering of caps and gowns can be a tremendous and time consuming task. Here, Nutley takes advantage of outside help. It rents its caps and gowns from the E. R. Moore Co.'s New York office. The sewing instructor, who is always in charge of this phase of the graduation preparations, receives a complete measuring kit from the company early in the fall. It includes a "quick measuring" wall chart for determining gown sizes and a tape measure for the cap sizes. Special simplified forms are provided for listing both measurements for each graduate.

For convenience, the company packs the gowns according to the sequence of names on the list. In this way, the gowns can be given out quickly and easily by simply having the students line up in the same order as their names appear on the order form.

Diplomas are given to students after ceremonies, at the time that they turn in their caps and gowns.

Congratulations are offered to Nutley's graduating seniors by Principal Edward S. Assmus, diplomas distributed later.

Key to this phase of graduation preparations is to place the order for caps and gowns as early in the year as possible. In fact, when they are returned to the company after the graduation ceremony, a card, provided by the supplier, is returned in the shipment. On this card is noted the approximate number of students that will graduate the next June, the tentative date of the graduation ceremony, and color gown Nutley has decided to use. (Nutley favors grey or maroon for boys, white for girls.)

The actual measurements for each student, and the final confirmation of the order itself, are not forwarded to the company until early in the following school year, generally between October 15 and November 15. The caps and gowns are distributed to the students two

days before the graduation ceremony.

Instead of giving out diplomas during the graduation, a role call of the graduates' names is read. Later the students reassemble to pick up their diplomas. They must return their caps and gowns before they receive their diplomas. This eliminates the bothersome job of collection and follow-up. The caps and gowns are packed and on their way back to the supplier within hours after graduation.

The processional

The actual graduation ceremony itself, including marshalling the processional and recessional and seating of the graduating class, is under the supervision of the dean of boys. Nutley graduations are held outdoors in the community's park. The graduates file across the green from two separate points to their seats in a temporary grandstand. A faculty member acts as marshal for each file.

Two rehearsals are held in the park about three weeks before the actual graduation. It is at this time that each student receives the one-page instruction sheets. These tell exactly what each participant should be doing at any given moment during the ceremony. Principal Assmus feels these sheets are essential to a smooth-running graduation. In his opinion, they are at least as important as the rehearsals themselves. A third rehearsal is held in the school auditorium in case rain forces the affair indoors. This contingency is also covered on the written instruction sheets. **End**

Students prepare musical selections, with graduating class playing key role.

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How to anticipate

When parents and taxpayers have questions that go unanswered, it's easy for hostile groups to undermine the schools. Here's Santa Barbara's solution: preventive public relations.

■ ■ ■ During the last school year, 14 town meetings on education were held in Santa Barbara, Calif. Their purpose: to give citizens an opportunity to ask specific questions about their public school system. But there was an even more basic reason, too. The school board and Superintendent Norman Scharer wanted to be able to anticipate any dissatisfaction in the community before it began to nourish trouble.

The idea of public information meetings isn't new. Three aspects of the Santa Barbara experience make it worth reporting, however, and worth *copying* if you suspect unrest in your own community:

1. Santa Barbara spread the sessions throughout the town, thus adding a neighborhood flavor to each of the gatherings.

2. Questions were answered forthrightly and thoroughly.

3. The superintendent, by his candor and attitude, made it obvious to attendants that school officials

THE QUESTIONS MOST FREQUENTLY ASKED

"What is kindergarten supposed to accomplish?"

"Do the schools teach phonetic spelling and reading? If not, why not?"

"How does our high school rate for college entrance work?"

"How far can a teacher go in punishing a student?"

"Why don't sixth graders receive more homework to prepare them for the big change-over to junior high?"

"Is there a remedial reading and math program at the junior high school level?"

"Why don't you have one hour of study hall, well supervised, instead of homework?"

"Inasmuch as our economic system seems to be based on individual initiative and competition, why aren't these things stressed more in our schools?"

were eager to get feed-back from parents on any school subject.

How the program began

The first town meeting was arranged by the high school PTA as one of its regular monthly programs. Persons interested in asking questions about any area of public education were invited to submit their questions in writing, *in advance of the meeting date*. A local scientist, respected in the community, served as moderator and presented the questions to Superintendent Scharer for discussion.

Why were the questions asked for in writing? Says Scharer, "When the meetings started, I was frankly worried that the unhappy group would load the audience and cause trouble and embarrassment. They did come to the second meeting and asked the same questions they had been pushing at PTA meetings and elsewhere. Fortunately, the moderator handled the situation so adroitly that the group never showed up again. We relaxed the rule after the first two or three meetings when it became apparent that it wasn't necessary to adhere to the strict rule of written questions. There is another advantage to the written question, however. It makes the moderator's job easier since he can frequently combine and re-state questions, and thus move the meeting at a faster pace."

Setting up the series

The first program was well received and plans were made immediately for a series of similar meetings at other schools spread throughout the district. In each case they were held in school auditoriums. Different moderators were used (though all were prominent citizens: a newspaper publisher, two bank officials, the president of a local college, etc.). In addition, the principal of the school where the meeting was held acted as a resource person to answer questions pertaining to his particular educational area. Whenever possible, the principal was involved in answering questions, partly because the questioners were his parents and partly because he was more familiar with local situations.

The same general questions were asked at meeting after meeting. Scharer reports that after the third meeting, he could almost anticipate what was coming. Interestingly, this definite pattern showed no change which could be attributed to the various socio-economic levels of the audiences. The critical subject areas were homework, report cards, building and employment, (*see below*).

School officials feel that the town meetings have been a major factor in abating dissatisfaction in the community. Moreover, the questions and opinions expressed have resulted in the adoption of new or altered policies on discipline and homework, the development of a new elementary report card, and a study of teaching foreign languages in the elementary schools. **End**

AT THE SANTA BARBARA PUBLIC MEETINGS

"What is being done to encourage the 'average' child?"

"How tactful should a teacher be when writing personal comments on a student's report card?"

"Why isn't more time spent in teaching our children *how* to study?"

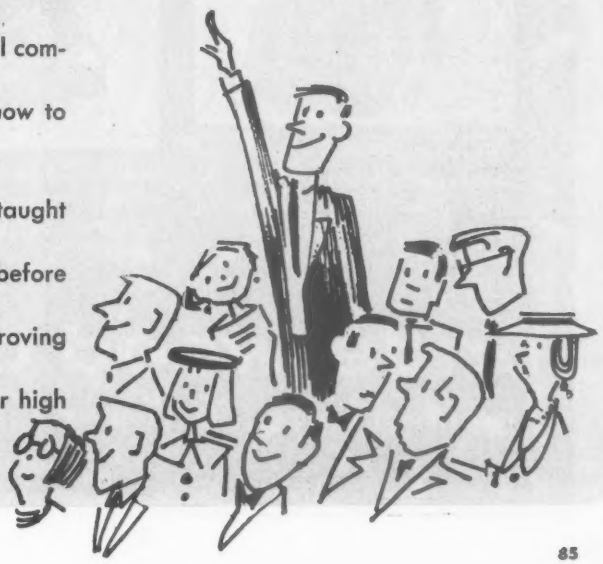
"What is being done about a new report card?"

"What are the possibilities of having foreign languages taught in the elementary schools?"

"What help is given a student in choosing his life work before graduation from high school?"

"How can parents and the general public assist in improving the educational program?"

"What is your attitude regarding parents visiting junior high school classes?"



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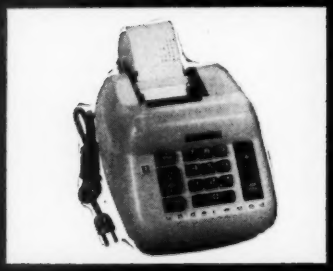

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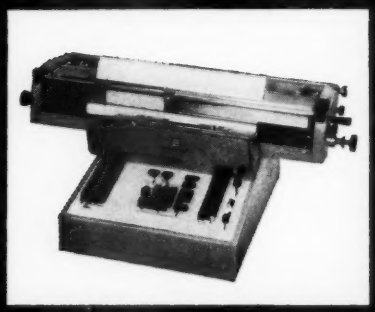

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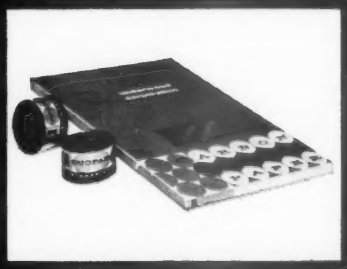

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A monthly review of ideas, new products and helpful hints

Dental hygiene program cuts tooth problems

A dental hygiene program carried out in the West Hartford, Conn., schools for the last eight years, has been given credit for a considerable improvement in children's teeth in the area.

Figures show that when the program started, 85% of the children examined were referred to their family dentists for treatment. That figure dropped to 47% last year.

The West Hartford dental hygiene program is a three-pronged affair including education, inspection and voluntary treatment.

The education part includes classroom instruction in the grade schools with dental hygienists showing children how to care for their teeth. Each child also has his teeth inspected and is referred to his family dentist if treatment is needed.

The third aspect of the program involves fluoride treatments begun in 1953 and put on a self-sustaining basis two years ago, when $3 was charged for a series of treatments. The fee this year has been raised to $5.

Seventy percent of eligible students are taking the fluoride treatments.

Lapping up education

An objection to "wasteful frills" that soak up school dollars has been voiced by a representative of one of America's "basic industries"—drinking.

Lawrence H. Sarricks, head of the bartenders union in Pittsburgh, Pa., has taken up the cudgels against frills in education, claiming that if they were eliminated teachers could be paid better salaries without increasing school taxes.

Sarricks has also attacked Superintendent Calvin Gross for encouraging teachers to bring pressure to bear on the state legislature to pass a school tax program. Teachers in Pittsburgh start at a $4,000 minimum. Lowest pay for bartenders is $4,576 plus tips.

But, then, if Pittsburgh would stop wasting money on education and start spending some where it really belongs, perhaps it could approach the paradise of Chilpancingo, Mexico. There, there are 30 saloons to every school—and not an educational frill.

Primary grade children learn Euclidian geometry

First and second-grade students in five school districts in the San Francisco Bay area are learning Euclidian geometry this year under a program supported by the National Science Foundation.

Two professors from nearby Stanford University are providing the impetus for the program.

The geometry classes grew out of an experiment carried out by one of the professors, Dr. Newton Hawley, associate professor of mathematics, in the spring of 1958. Dr. Hawley was invited to speak before his daughter's first grade class. He presented the children with some geometric concepts that fascinated them so much, he was signed up to give a short daily lesson for the rest of the term.

Last year Dr. Hawley and Dr. Patrick Suppes, associate professor of philosophy, brought geometry to 100 students at three different schools. The three classes proved to be "highly successful and very practical," according to Dr. Hawley.

As a result the program is being expanded this year to include students in the Mountain View, Portola Valley, Burlingame, Ravenswood and Palo Alto school districts. It has been designed to begin with second-graders instead of first because the professors found that some reading ability is necessary. A workbook is now being prepared.

"As far as we know a program like this has not been tried before," says Dr. Hawley. But he noted that geometry is an elementary school subject in many European schools. "The subject is so appealing that we don't have to appeal to any outside interests," Hawley stated. "The subject is not beyond the children; our problems are problems of presentation."

The program is not for gifted children. The workbook is being prepared with as many as six different versions of each lesson, ranging from standard high school explanations to much simpler ones. The professors plan to evaluate the program through the use of testing, and hope to announce results by the end of the year.

Report cards

Students in Garden City, N. Y., are getting a new kind of report card this year—from the police. Youngsters who ride bicycles to school will receive grades on their safety habits. Reports on such violations as riding on the wrong side of the street and carrying friends on handle bars will be sent to parents.

A similar plan, initiated in neighboring Rockville Center, N. Y., last year has resulted in a substantial reduction in traffic violations by cyclists. There, police confiscate bikes for serious violations, inform parents when minor transgressions are committed.

Entrance age lowered in Colorado district

Reversing a nationwide trend towards raising the entrance-age for elementary school children, the Cherry Creek, Colo., school district has recently announced that it will now make it possible for younger children to start the first grade.

Rather than set an arbitrary date—previously children had to be six by November 30th in order to enter the first grade that year—the district has ruled that a child may enter school "when he is ready."

In practice this will mean that if a child is six or nearly six when school starts, he will be automatically admitted. If he is considerably younger and his parents want him to start school, they will have to take him to an approved psychologist who will recommend his admission or advise that he wait another year.

Other school districts in the area are holding to the November 30th

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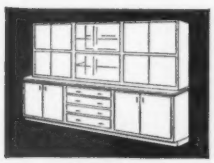
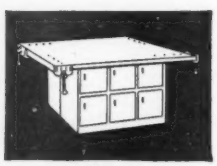


Storage

Mechanical Drawing



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date or following the lead of Jefferson County and demanding that children be six by September 1st if they are to be admitted to school that year.

Financing rated as top school problem

A survey of 236 school superintendents, board members, education writers, and citizen committee members throughout the country, reveals that a large plurality feels that school financing is education's greatest current problem.

The survey, taken for SCHOOL MANAGEMENT by Arnold Bloom of the National Citizens Council for Better Schools, also showed that school-citizen relations underlie most of the pressing problems.

The survey was taken on a free-answer basis. Respondents were asked to name the three school problems they were most concerned with as school opened this fall. Better than 36% of those replying chose school finances as the number one problem. Other frequently mentioned problems included classroom shortage (26.7%); shortage of qualified teachers (9.7)%; curriculum improvement (8%); district reorganization (4.7%); public relations (4.7%); improvement of teacher salaries (2.9%); local politics (1.6%); racial integration (1.3%); unsafe buildings (0.9%).

Underlying all the replies was the general feeling that greater public understanding of school problems must be achieved before any single one can actually be solved.

A Hicksville, N. Y., school board member summed up this feeling when he listed as his main problem: "To get the community to continue to support quality education despite high taxes."

The solution, said Superintendent Ernest R. Britton, of Midland, Mich., is to "maintain and improve quality without increasing the unit cost."

Televised physics course offered to Texas students

High school students taking first-year physics in at least 23 Texas school districts this year are getting three periods of training each week over television. Two periods are conducted by their own individual teachers.

The teaching program involves the cooperation of independent school districts in six East Texas counties and Houston's educational television station, KUHT.

In each district at least one class

in first-year physics is scheduled at 11:30 a.m. this semester. At that hour, on Mondays, Wednesdays, and Fridays, they turn on Channel 8 on their television sets to hear and watch John Outterson, an experienced teacher-on-television, conduct a regular class period.

On Tuesdays and Thursdays, the physics teacher in each high school in the 23 districts conducts the period himself—generally a laboratory period.

Students in physics classes scheduled at other hours are being encouraged to get a study period scheduled for 11:30 a.m. so they can watch the televised instruction.

Coordinator for the project is Dr. Lester S. Richardson, of the University of Houston physics department. Under a $44,000 grant from the National Science Foundation, the university is studying the results of the project. "Matched pairs" are being used to compare the achievements of the students who watch the TV course as part of their schedule, those who see it as "enrichment" but have their regular physics classes at other times under their own teachers, and those who aren't involved in TV teaching at all but get only local training.

"Physics requires more time and preparation by teachers than almost any other course taught in high school," Outterson commented. "In smaller high schools only a few students get to take physics, and they are often the top students; but by the nature of things, they sometimes get a course that is not as thoroughly prepared as one would desire.

"On television we will give them a thoroughly prepared course. We trust that it will bring to the better students in smaller schools better education."

Outterson said that the teachers in various schools to whom he has talked are all enthusiastic over the arrangements. "They realize what it can do for them, for their students," he said.

Teacher speakers bureau aids public relations

Teachers in Modesto, Calif., have come up with an idea that has aided their school public relations program immensely and at the same time added greatly to their individual stature in the community. They have set up a speakers bureau offering programs, at no charge, to every local service club, civic and fraternal organization.

During the first eight months of its operation, the project, called the Community Service Organization, has provided speakers or entertainers from within the ranks of school employees for 167 programs before 118 different clubs and organizations.

To date, 175 teachers and administrators have signed up in the group to contribute their talents on every subject from science and English lectures to banjo playing and model train making.

The subjects themselves fill a bigger page than the list of volunteer speakers. Most of the teachers and administrators have at least two fields in which they can speak, demonstrate, show films or perform.

The plan started working just about a year ago when 27 teachers, representing all the schools in the Modesto city system, the teacher associations and the junior college faculty club, met to kick the idea around and begin the talent pool.

To obtain information about those who might be qualified and willing to appear before local groups as speakers, panel members, musicians, etc., a questionnaire was sent to every teacher and administrator.

The response was more than gratifying.

Teachers and administrators by the score expressed their willingness to appear before groups. Some of the topics they were anxious to talk to the public about included athletics, health, welfare, agriculture, art, counselling, school building problems,

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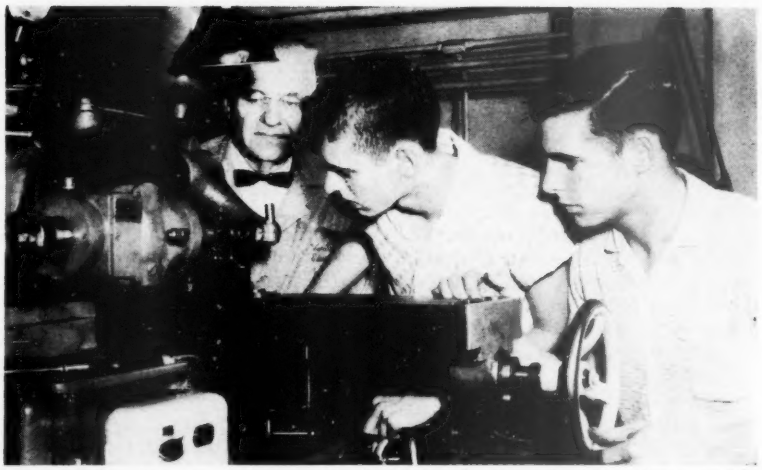
Realistic project aids schools, saves money

Vocational industrial training classes at Central High School in Springfield, Mo., are in the midst of a project which will make all the Springfield schools safer for many years to come. And students are getting a realistic industrial production project in the design and manufacture of fireproof steel cabinets.

The project started last spring when the city's fire prevention bureau recommended that all inflammable materials, including duplicator fluids, be stored in fire proof cabinets. Rather than purchase them, the schools decided to have the cabinets constructed by students in the school system's vocational and industrial training program.



Cooperation between four vocational training shops made the project possible.

Steel cabinets are being built by students to fill a real school need.

The cabinets, which measure 72″ x 36″ x 18″ and are made of 24 gauge steel, are being made at a materials cost of $24.35 each. The cost of purchasing the cabinets would have been approximately $70 each. The savings on the 40 cabinets being built amounts to the difference between $2,800 and $974—a total of $1,826.

David Berryman, director of the vocational and industrial education program, reports that shop instructors are enthusiastic about the project and that other similar economical cooperative projects might be possible in the future. "This has provided several classes with a genuine industrial production problem as a part of their training," Berryman said.

Four shops are cooperating to complete the project. The vocational drafting class produced plans for the cabinets as well as shop drawings. Sheet metal work classes actually are building the cabinets. Vocational machine shop students tooled up to make handles, bar catches and to install the locks. Auto mechanics students are doing filing, sanding and finishing of the cabinets.

When school ended last June, 15 cabinets had been completed. Work on the remaining 25 needed for school storage use will be completed this fall.

text continued from page 89

speech, leadership, curriculum, mental health, careers, junior colleges, current and world affairs, industrial arts, handicapped children, slow learners, business, public relations, teaching in the Indian Service and reading to children.

Offers to give slide talks came in from volunteers with slides on Alaska, Mexico, Australia, Europe, Japan, Korea, Hawaii, Sweden, India and national parks in the U.S.

An announcement of the service was made in the local newspapers and calls began coming in to Mrs. Inez Rice, school public relations director who had volunteered to coordinate the program, from groups throughout the area. Many expressed relief at finding such a simple way to provide a program for the next meeting.

For the first time, in many cases, the people of the community got a real look at the qualifications and abilities of the teachers and administrators charged with educating their children.

They were pleased with what they saw and requests for programs have been coming in since at a steady pace.

"It makes it so simple for program chairmen," notes Mrs. Rice. "About all they have to do is select what kind of a program they'd like, then call me up and tell me when they would like it. And clubs don't have to settle for a second rate speaker because of their inability to pay a large fee. We charge absolutely nothing."

Most important of all is the fringe benefit the speakers bureau has brought to the schools. Teachers often speak on such subjects as school building programs, upcoming bond or tax issues, reading and other curriculum matters. In addition they find they have a ready after-meeting audience for discussion of other pressing problems in education.

Lack of communications between the schools and the public has been pinpointed in California as one of education's biggest problems.

Teacher plea brings industry into town

A letter from an alert Wayne Township, N. J., teacher has won for her town a giant plant of the American Cyanamid Co. The company will pay about $150,000 annually in school taxes.

The teacher, Music Coordinator Louise Johnson, had noted the difficulties the company was having in the neighboring town of Alpine, N. J., where residents fought rezoning that would have allowed construction of the plant there. The plant will be ad-

ministrative headquarters for the firm and will handle no industrial production.

Taking her lead from Wayne Township officials who had indicated their interest in bringing new industry to the town, (*see SM, Oct. '57, p. 58*), Miss Johnson wrote to the company and invited it to look at Wayne and decide to settle there.

"My identity is immaterial," she wrote, "except to say I am a teacher who is anxious to have good schools and sound educational programs, found only in communities where the tax burden is shared by industrial and residential tax income.

"Having taught formerly in Bergen County [N. J.] towns that pride themselves on being 'strictly residential' and thereby limiting the quality of education their taxes can afford, I am now teaching in Wayne Township where planning and goals are more farsighted. The results of this planning show up in educational facilities you can offer your employees and their children."

Miss Johnson's letter, sent to V. R. Bechtel, assistant to the executive vice president, brought action. The company investigated the possibilities in Wayne, found the situation as described and made plans to build its plant there. It will contribute $200,000 a year in taxes at the current rate, about three-quarters of it going to the school system.

Car-grades relationship shown in new Iowa study

The relationship between good grades and non-ownership of cars among high school students, has been shown in an Ottumwa, Iowa, study.

The study showed that students who neither own a car nor drive to school, regularly attain higher scholastic records than those who do. Further, tardiness and absences are way down among this group. The study was conducted by Lewis E. Dye, assistant high school principal.

Dye's study revealed that many tardinesses among the car-driving group occur around the lunch hour. Car breakdowns were also frequently responsible for poor attendance.

The one exception to the general rule concerned students who live a great distance from school and participate in late-ending extra-curricular activities. Often these students drive to school because public transportation is not available when they are ready to return home. As a group they have a high scholastic average that brings the average of all car-owning students to a higher level.

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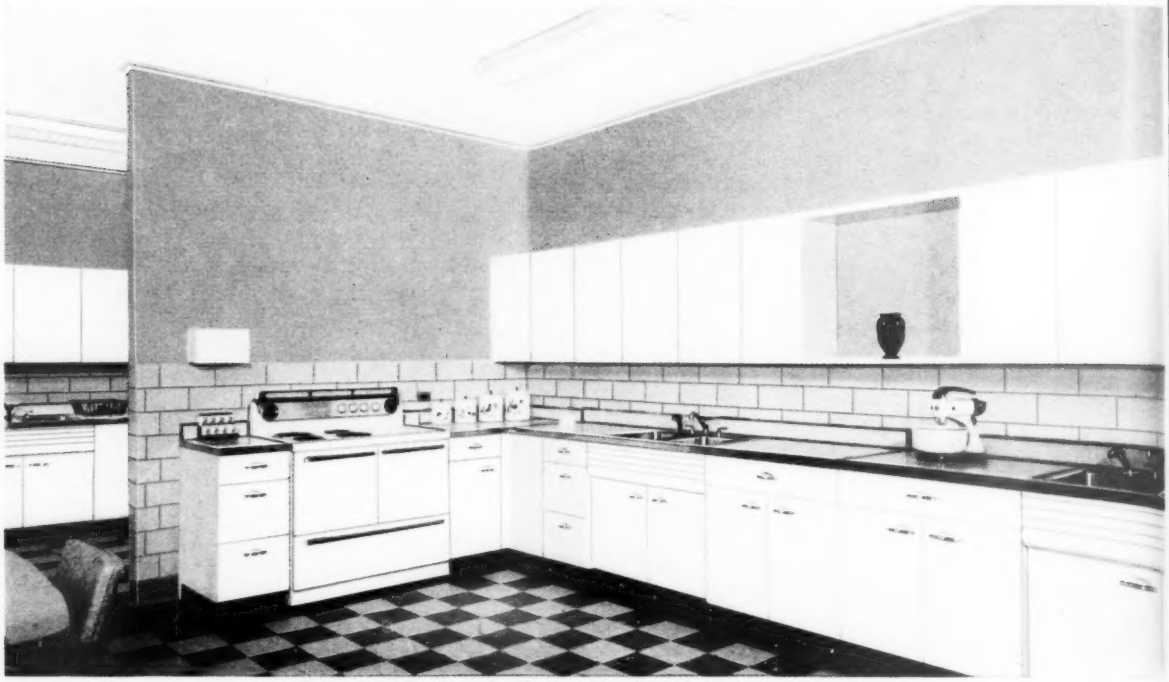

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Modern painting system improves academic gr

For years it was the custom to paint all school interiors in traditional light buff, tan or ivory. But since the introduction of Pittsburgh COLOR DYNAMICS many hundreds of schools have classrooms with color arrangements in keeping with the activities of the pupils who use them.

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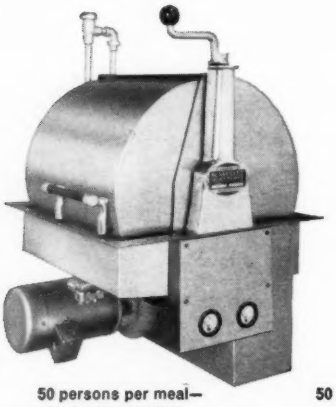

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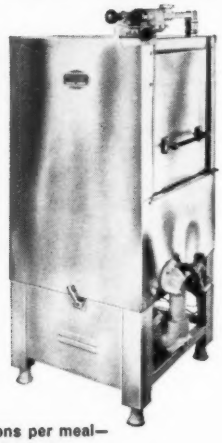

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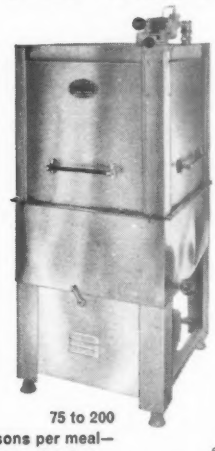

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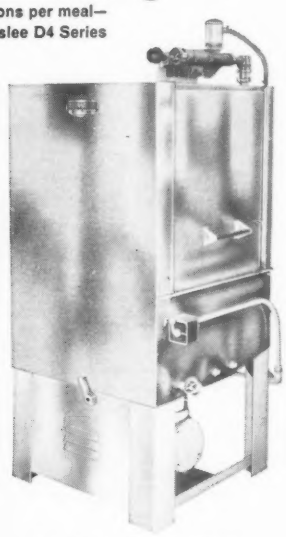

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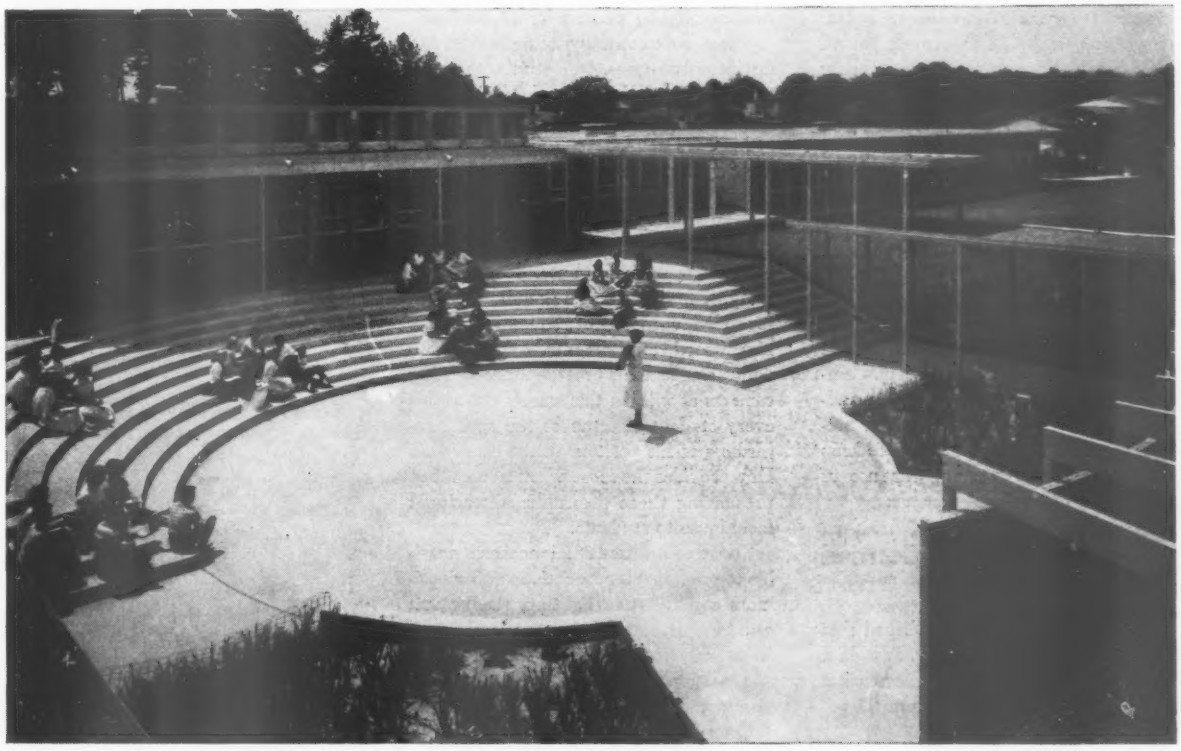


■ ■ ■ When Charles Potter, Jr., designed the Belle Meade Elementary School in Greenville, S. C., he had to cope with a sloping, irregular site. Since three classroom units were involved, it became apparent that one building would have to be at a lower level than the others. This grading "problem," thanks to a little stretching of the architect's imagination, has been converted into a teaching area that has become the most widely used facility in the school.

As the illustrations demonstrate, Potter designed a handsome amphitheatre in lieu of a graded lawn and steps. The cost of the concrete steps, paving and "stage" was slightly under $1,000. The area can be used, as shown, (*above*) as a classroom or as a theatre and assembly area in the mild South Carolina climate. It has also won great favor as a student meeting place. **End**

Here's a Partial Answer to the Question: "How Much Will Educational TV Cost Us?"

TODAY there are over 100 educational television installations in the United States.

From the wealth of experience gained through actual use of ETV at our many Universities and Colleges, and the Hagerstown, Md., Washington County School system network, it is believed that the quality of television equipment should be of the same calibre as that used in commercial television operations. That doesn't mean ETV costs are prohibitive.

Projecting the results of work now being done, indications are that there will be local, regional, and national television networks for both closed, or open, circuit educational use within a few years. Compatability with television broadcast standards will be a requirement of such networks. This is an important point to keep in mind for those planning the use of television in their school systems.

Cost Advantage of Central Broadcasting Studio

It has been fairly well established that the use of a TV teaching center, or studio, is the most economical and most efficient method of employing television in the educational system.

Cost for equipment and maintenance is reduced by having the necessary equipment in one area. The life of the equipment is extended and efficiency is improved because it is easier to move personnel, as well as articles of instruction, rather than cameras, lights, cable, microphones, etc.

The use of a centrally-located studio has distinct advantages. In a studio, the educator can carefully plan and stage his production to provide maximum utilization of his TV system. It is desirable to use at least two cameras in every production so that wide angle shots and close-ups can be intermixed by switching, or dissolving, between the two cameras. The use of three cameras would permit but little more flexibility. A multiple camera studio provides for individual views of the instructor, his blackboard, experiments, etc. Suitable dolly arrangements provide for re-locating cameras at will. In this way, TV provides every student close-up of the action regardless of his position in the classroom. ETV provides the most practical means of presenting these desirable educational techniques to students.

Too, a centralized studio makes it possible to program all productions under optimum conditions of lighting, staging and camera operation. The picture and sound from such a studio can be transported to any location by means of suitable distribution systems.

Complete information about the advantages of a centralized studio can be obtained by writing this electronic manufacturing firm: Sarkes Tarzian, Inc., Educational Television Department, Bloomington, Indiana.

How About Costs?

Using the centralized studio concept, equipment facilities including film reproduction, live studio camera, and all monitoring and control facilities can be installed for as little as $20,000. More flexible and more elaborate installations will cost from five to fifteen thousand dollars additional depending upon individual desires and requirements.

Costs can best be controlled in advance by writing specifications describing the end result required, as well as equipment performance specifications.

Specifications should not limit the number of bidders. A thorough study of proposals will allow purchasers to eliminate bidders proposing equipment which cannot adequately perform the intended results.

How do you choose a reliable ETV consultant? Ask the equipment manufacturers to send their representatives to see you and discuss your individual requirements. You can choose as your consultant the representative who furnishes the most impartial and objective specifications for your job. These services generally are provided free of charge. Complete specifications and equipment lists are available from Sarkes Tarzian, Inc.

Results?

Even with the teacher shortage, the expected student enrollment increase can be effectively controlled by employing TV as an instructional tool.

Although some subjects lend themselves more readily to the use of television presentations, ETV has been used successfully for teaching almost every subject.

Extensive use of slides, film, charts and blackboard for explanations have proved to be most effective in ETV.

With a suitable distribution system, multi-channel distribution of different subject matter can be accomplished. And, by using a centralized library of visual aids, the centralized studio is capable of disseminating several programs simultaneously. Interested school officials are invited to contact the Tarzian company for complete information.

SARKES TARZIAN is president of the firm bearing his name, Sarkes Tarzian, Inc., a pioneer in the fields of Television and electronics development and manufacturing. Sarkes Tarzian, Inc. is a $20 million company with seven operating divisions located in Bloomington, Indiana. These divisions include commercial TV and AM radio station operation and the design and production of several electronics products. The Tarzian firm, one of the nation's foremost suppliers of TV equipment for educational use, is recognized for its personalized service. To date, more than 30 universities and colleges have been served by the Tarzian Educational Television Department. Schools such as Ohio State University, University of Florida, University of Dayton, San Diego State Teachers College and Des Moines Technical High School are among those using Tarzian closed circuit TV equipment.

(Circle number 754 for more information)

The ungraded primary

continued from page 44

student will study at the fourth-grade level. He will also have many experiences in creative writing, dramatics, in learning how to use the library and do elementary research, etc. He will have many experiences that go beyond what is normally taught in the primary grades. Any number of things are possible in level eight. The following September, when this student is actually placed in a fourth-grade classroom, provisions have been made to receive him at his particular level of achievement. No pupil who has had level eight will be asked to repeat any fourth-grade work he may have had in the primary school.

Q. So level eight is only for students who have finished levels six and seven, the third grade work, before the end of the school term?

SMEDSTAD: No. We can also use level eight for a student who, perhaps, has completed the first seven levels in two years but is not physically or emotionally mature enough to go into the fourth grade. He may stay as long as a full year in level eight. This does not mean, of course, that a student who finishes levels one through seven in two years would necessarily be held in level eight for a year. This would have to be evaluated with the parents, the teachers and Mr. Hart. They would have to decide whether they felt the particular student was ready in all ways to enter the fourth grade. If they felt he was, then he would be placed in the fourth grade. If he was not, we would take advantage of our level eight.

Q. Does everyone get into level eight at one time or another?

HART: No. If a student finishes level seven at the end of his third year in school, he moves directly into the fourth grade the next year. Also, a student who had not completed the seventh level at the end of four years in our ungraded primary would be advanced into the fourth grade. We do not feel that we can hold a student any longer than that.

Q. Is there any problem integrating new students into your school?

SMEDSTAD: No. We don't anticipate any. We simply give students standardized tests. We have their records from their former schools, and we place them on the grade level we think is most appropriate. This is always a problem in any school situation. But actually, we have a much easier set-up than most. For example, a student coming in from the third grade of one school may not be on the third-grade level in the school he is entering. But he may not be on the second or fourth-grade level either. In our school he will approximate one of our seven levels of learning in these first three grades. We may make a mistake for a few weeks, but we are able to pretty quickly place him on the right level.

Q. How about a student leaving your school?

HART: Again, this should be no problem. We send records along to his new school. We tell them what our program is and approximately where he would stand in a traditional grade. We would assume that the new school would give him tests and would be able to place him in his proper level.

Q Does a teacher in your system stay with the same group of students throughout the student's three years in the ungraded primary?

HART: No. We had thought about doing that at one time but decided against it. Teachers are assigned to a group of students each year and take them through that year. As we said before, in a few cases students will be moved from one class to another during the year, but, generally speaking, teachers stay with the same group of students one year and then get a new group of students the following year.

"Results of tests tend to prove that the ungraded primary is good for all students, fast, average and slow."

SMEDSTAD

Q. How did you choose which teachers were to teach at each level?

HART: The same way we would do it in a regular graded set-up. We chose the teachers who were best equipped to teach at each level and to teach the different types of students. The teacher who was particularly patient, who liked to work slowly and give a lot of time to an individual problem, would probably have been assigned to a slower group of students. A teacher who liked to do a lot of experimenting, who was particularly adept at stimulating his students, would probably be assigned to the more able students.

Q. When you say slow and fast in these terms, it is a little confusing. Wouldn't you have in level three, for example, both fast and slow students? Wouldn't you have fast "first grade" students and slow "second grade" students?

HART: We would have more than one classroom with a level three in it. We would probably have two or three, so that the faster students, the brighter ones if you want to call them that, would probably be in one classroom and the students who were somewhat slower or less mature would be in another.

Q. Do teachers like teaching under this ungraded set-up?

SMEDSTAD: Very much so. It was

their idea in the first place. Further, by cutting down on the range of student abilities they must work with, we have greatly simplified their job.

HART: We have a particularly good group of teachers here. Actually they are enthusiastic about this program and their enthusiasm helps them in their work. We have had absolutely no problem in the placement of teachers or the type of teaching necessary in the ungraded primary.

Q How about the parents? Didn't you get some objections from them? For example, if two boys had grown up together and had gone into the first grade together, they probably would have ended up in the same class. Now, under this system, instead of advancing together, they are split up.

HART: There were no objections. But there might have been if we hadn't taken the time to call our parents in and talk to them. We very carefully explained the program and how we felt it would benefit the child and how we would be able to do more for the child, help slow learners as well as able learners. I think it was because of this that we did not receive any objections.

SMEDSTAD: Another factor was that we had been doing a modified form of ability grouping for several years. It gave parents the flavor of this new program we were trying. But we didn't leave anything to chance. We presented this ungraded primary to the board and the members said we could try it out in one school—Mr. Hart's school—for three years. The two other elementary schools in the district were to serve as controls. When we were given the opportunity to experiment with this program, we didn't sit back and spring it on our parents. We called them into meetings. There were grade meetings and school meetings. We explained the program. We had teachers talk about the program. We answered questions about the program.

Q. Were parents required to come to these meetings?

HART: No. Parents were not required to come to the meetings but most of them wanted to come.

Q. How did you handle meetings?

SMEDSTAD: Mr. Hart and I spoke at them and so did many of our teachers. Before we went into any of these meetings we took a lot of time to brief our teachers on the program. Actually, Mr. Hart and I had been thinking in terms of an ungraded primary for some time. But we did not want to institute it unless we felt our teachers, as well as parents, were ready for it. What happened was that the teachers came to us and suggested an ungraded primary. This was the break we were waiting for. When they suggested it, we said, "Well, let's start investigating it" and this is what led eventually to institution of the program. This meant that our teachers knew pretty much what was going to happen so that they were themselves already experts on the program.

Q In your first year of operation, were there any measurable results from your ungraded primary? Have you made any tests or comparisons between the students at the Peter Boscow School and the other two schools that have a regular graded program?

SMEDSTAD: Yes, we have, and the results tend to prove that the ungraded primary is successful for all students.

HART: I have some statistics in front of me now. We did compare the progress of 90 six-year-olds in Peter Boscow School with the progress of 90 six-year-olds in another elementary school. The two schools were very similar in every way, the one exception being the type of organization—graded versus ungraded. At the school being compared with Peter Boscow, 21 students, as measured by the Gates Primary Reading Test, failed to achieve a score of second grade or better in reading. At Peter Boscow School eight students failed to achieve a score of second grade or better in reading. At the school being compared with Peter Boscow, seven students achieved a reading level of third grade or higher. At Peter Boscow School, 16 students achieved a level of third grade or better. A statistical analysis revealed this difference to be significant at the 5% level of confidence. We believe that these results indicate that our ungraded primary has been successful.

Q. Have you given any thought to extending your ungraded primary into your intermediate grades?

SMEDSTAD: No, not as such. But we do have a language arts program in the fourth, fifth, and sixth grades that is ungraded and where students are grouped according to their ability. So, you see, we have extended the idea of an ungraded learning situation to the intermediate years.

Q Finally, Mr. Smedstad, are you convinced enough of the success of this program to consider putting it into your other two elementary schools?

SMEDSTAD: As we mentioned before, this is a three-year experiment. While our first year's achievement results, statistically speaking, are significantly better in the ungraded situation, I believe that we'll need the full three years to refine and evaluate the program before saying that we have the answer for the primary grades in every elementary school. There is also another important factor that operates in the success of any new or experimental program and that is staff readiness and acceptance. Teachers, principals and the parents must be 100% for the program or it will not work. The ungraded primary program at the Peter Boscow School has every chance of succeeding because it has a "curriculum conscious" principal, an aggressive, experiment-minded teacher group and a forward looking parent body. These ingredients are necessary if a new program is to really achieve its greatest success.

How it works in Burlington, Vt.

■ ■ ■ The ungraded primary in operation in Burlington, Vt., is essentially the same as that in Hillsboro, a continent away. The system has been in use in one school for five years, in another for two.

Although convinced that use of an ungraded primary would result in better teacher utilization, the Burlington administration wanted to be sure that it was educationally sound. During the five years the plan has been in operation, careful statistical records have been kept of the progress of students in both graded and ungraded primaries.

These showed that, in general, students in the ungraded primary did *better* work than their counterparts in the graded classes. For example, when students were in actual grade placement of 5.8 they were given reading tests. Those who had come up through the graded primary scored 6.5 (.7 above actual grade placement). Students who had attended the ungraded primary scored 6.9 (1.1 above their actual grade). The two groups were of almost identical IQ and social composition.

At the other end of the scale, there were 23 non-promotions in the seven-year period from kindergarten through grade six in the completely graded school. This was 9.4% of the total average enrollment of 255. In the school with the ungraded primary there were only 11 non-promotions in a student population of 300, just 3.6%.

In further tests it was shown that at every grade level, from the third through the sixth, students who had been in the ungraded primary scored higher on standard reading tests than did those who had been in graded classes.

A SCHOOL MANAGEMENT editor went to Burlington to interview Superintendent William Logan, Jr. on the Burlington set-up and to elicit any basic differences between his system and that in operation in Hillsboro. The following are excerpts from their tape-recorded discussion:

Superintendent William Logan, Jr., of Burlington, Vt.

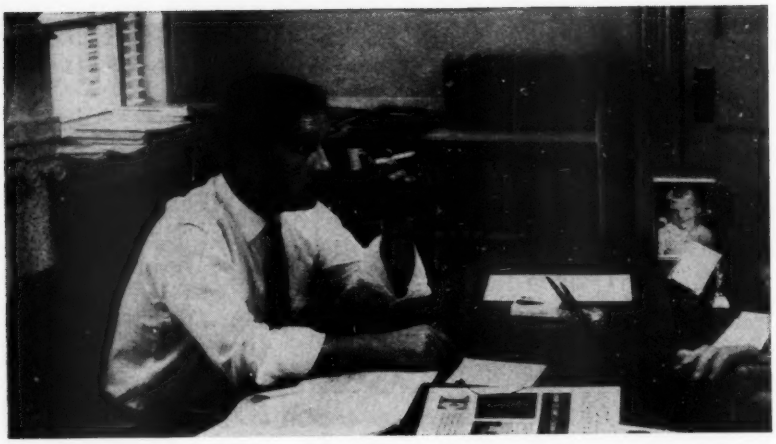
Q Mr. Logan, you started your ungraded primary in Burlington because you had too few teachers and too few classrooms in the elementary grades. Was it your idea that you could get by with fewer teachers and fewer classrooms with an ungraded primary?

A. No, not in the sense you are implying. Let's say a school has 150 students in grades one, two and three. It needs six teachers, if you want to have a classroom ratio of 25 to one. But this is possible, in a conventionally graded school, only if those 150 students in the first three grades fall into neat packages of roughly 50 in each grade. Then you can have two first grade teachers, two second grade teachers, and two third grade teachers, each with 25 students. Unfortunately, children seldom come in these equal bunches. Let's say you have 80 children in first grade and 35 in the second. That has happened here. Under those circumstances you could get by with six teachers only if you were willing to have 40 per class in the first grade and 17 or 18 in the second. In other words, you really need an *extra* teacher to deal with a situation where class sizes are substantially uneven. In the ungraded primary, we could divide those 150 students so that each teacher had fewer than 30 students.

Q. How do you group—by reading level? By IQ?

A. No. Reading level is important, but if we were to group that way we would find that we had no leaders in one room and all the leaders in another. Nor are we just teaching reading—we are teaching all things. Students are grouped so that a teacher will have some natural leadership in the room but she, herself, will not face more than three ability levels to work with. In other words, we have two criteria here: First, we want to get natural leadership into every room. Second, we want to group so that the range of abilities in each room is cut down. At the third grade level, for instance, a school ordinarily will have children working over a range of five years or more. One student, on his very best day, will be working at the third-grade level. Another will be working at the fifth or sixth-grade level, or higher. We want to cut down this range in each teacher's class without destroying the potential for leadership in each classroom.

Q. What would happen if a student suddenly spurted ahead, in read-



"Other schools face the problems we faced. When they find out that what we are doing is not out of the ordinary, they'll start doing it too."

LOGAN

ing ability, but was in a class where the teacher did not handle the reading level at which he was prepared to work?

A. We would send him, during the reading period, to the teacher who was teaching at the level for which he was prepared. Then, when that subject was finished, he would come back into his own classroom.

Q. In other words, he stays with his given group except in reading?

A. That's right. But this would happen to only a very small percentage of students—less than 5%. It would show, simply, that the testing, on which we take a gamble anyway, had made an error. We don't want to peg a child because on any given day we gave him a test and he came out at a certain level. This system is flexible enough to allow the child to move. The chances are that there would be one or two who might find themselves in this position of moving from one classroom to another.

Q. Why don't you actually move the child bodily to the next teacher or the next level?

A. There's the whole problem of growth and development. This may be a spurt on his part and he may very well just fall onto a plateau and stay at that point for a period of time depending on how the spirit moves him, his basic metabolism and all the other things that affect his growth. Normally, 95% of the kids will go through the three levels just as they would the three grades, in three years. The extremely bright, gifted child will go through faster. The slower ones may have to take some extra time.

Q Mr. Logan, why can't kindergarten be included in the ungraded primary?

A. It can. Our kindergarten program is tied in with our primary unit. Some of our children have had a half-year of reading before they get to first grade. This is not for all children—it's for the ones who are ready.

Let us say that we have one kindergarten in the school taking care of about 60 in morning and afternoon shifts. About half-way through the year we know there are certain children now ready for first grade. By rearranging things and saying, "Will you come in the morning?" to Mary and Johnny who are in the afternoon session, we have a group of eight or 10 pupils who are really ready for the reading-readiness program. They may very well start into the primer before the year is over.

Q. Doesn't this ungraded primary —especially in a situation where you have students moving to different rooms for their reading lessons —mean that teachers must program their day very carefully? Don't you get resistance from your teachers?

A. No, because they were sold on the program before we started. They were willing to compromise their traditional attitude. If Miss Jones had been going onto the playground at 10:10 for the last 15 years and because of this program she had to go out at 10:20 and she made a fuss about it, this could have killed the program immediately. But the teachers did not fuss. They felt this way about it: rather than have to face five levels of learning in a classroom—as they did under the normal grade system—now they had just three levels to work with. Therefore, they were able to devote more time to their students and do a better job. The teachers' great hue and cry is time, time, time. And this program gives them more time.

Q Do you find your ungraded primary is an attraction to new teachers when you are recruiting?

A. Yes, it is, very much so. We get two kinds of people to come into this kind of program very readily. One is the rural teacher who is used to teaching in an ungraded country elementary school. In a one-room schoolhouse, she has children ranging from the first through the eighth grade and the idea of teaching various students at the level they are ready to work on doesn't phase her a bit. Second, we cooperate with the University of Vermont and other teachers' colleges in their teacher training programs. If we can get a student who has worked under our program in her student teaching situation, then she is an easy person

to fit into our ungraded classes.

Q. Can a green teacher right out of teacher college fit into this program?

A. Absolutely. What is she going to deal with? She is going to deal with three groups of kids. It is far better than most teaching experiences where she will have five or more levels, even though they are all said to be the first or second grade. This is very appealing to teachers. They like it.

Q. How do you report progress to parents?

A. We send out report cards every six weeks. And we are able to tell parents exactly where their children stand. For example, we don't just send home an "A" for reading. Our card will say "Your boy is getting A at the second-first level." Now that means that the child is doing very well in the first basal reader of the second grade. Perhaps his classmates are on the second reader of the second grade, but that is unimportant. The child is doing A work at the level at which he is able to work. That is what we report to his parents. In arithmetic he may be at another level. For example, he may be getting an A or a B at the third level of the second grade.

Q. Let's try to clarify this a little. In an ordinary graded elementary school, you will get three or four reading levels broken up in each classroom anyway. Aren't you doing the same thing?

A. It's exactly the same thing.

Q. Well, how does it differ?

A. Primarily, in initially grouping the children not according to the traditional grade or chronological age but by ability.

Q. Well, then doesn't this defeat the chronological age theory that you expressed earlier, the interest in keeping children of the same age together? If the child is in the second year, he might be reading with kids from the first year.

A. He might very well be, but in all other activities, whether it be on the playground, socially, any other area, he is with his own age group.

Q. In other words, it is only in reading that children are moved up or down?

A. No, not just reading. We are going beyond this. In other words, if he has an ability in mathematics, for example, we will group him ahead in mathematics. We keep talking about reading because this is the bulk of the program at this level but as he progresses into other subject matter areas, we group the same way. As you get into higher and higher grades—into the intermediate grades, for example—this becomes more and more complex as Johnny does well perhaps in mathematics, not so well in science, very well in art, poorly in reading, etc. In each one of these cases, he must be grouped on his level. But his homeroom, his basic social and physical activities, are with his chronological age.

Q Suppose at the end of a period of time everybody but one child in a room has moved off a certain basic reading level. Would that one child be moved along with his group, carried along and perhaps given special help by his teacher?

A. Well, we would hope that when we had grouped them initially, we wouldn't run into this situation, but if a child has failed, he's failed. If, after a parent-teacher conference, we have decided we cannot move Johnny ahead, then Johnny has to accept this. Everything isn't all sweetness in life. We fail children in this program. We make them stay back. We have a set of goals to achieve and this isn't social promotion. Of course, we do a lot of investigating before we have a child stay back. We check to make sure that his hearing and his eyes are all up to par, and that these are not what are holding him back.

Q. Have you ever thought about moving a teacher right through three years with the same group of students?

A. We have thought about it but our own staff prefers not to. We had one teacher who traveled with a grade for four years. This has its advantages and its disadvantages. She knows the children and she does a good job with them. On the other hand, think of the situation where a teacher is weak in one subject area herself. That's not good. For example, when I was a rural superintendent I had a teacher who had a grammatical problem. Her pet expression was "they was." She had the same students for eight years in a one-room schoolhouse. Even though she corrected herself everytime she said "they was," every student coming out of that school, after eight years, said "they was."

Q. Are there other schools in this area using the ungraded primary?

A. I don't know of any. We have had a few inquiries but not too many school systems have followed up their plans. Other schools face the same problem that we faced but most people are frightened to death of this thing. They think this is new and they are afraid to try it. But when people come to see our program they go back ready to try it.

Q What would you recommend to other school systems that wanted to get started in an ungraded primary? Is this the only way it can be done?

A. No, this is only one of the methods. The first thing I would do would be to discuss the whole thing in a faculty meeting with the elementary teachers. I would say "Here is a program that is functioning in Burlington, Vt., and Marblehead, Mass., and other places. What do you think about it?" I would let them bang the idea around for awhile. They are going to hold back. They are going to think traditionally. They are going to say "I teach grade two," but then they are going to think that if they taught grade two with only second graders in it, it might be better. The staff has to be sold on it.

Q. Do you think that many schools will eventually switch over to the ungraded primary?

A. It's the obvious thing to do. It solves the problem and it solves it well. As soon as more school systems get used to it, as soon as they find out what we are doing, and that it is not so out of the ordinary, I think they will adopt it. **End**

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2 All forms of life, including plants, can develop cancer.	TRUE	FALSE
3 Cancer is not contagious.	TRUE	FALSE
4 More men than women die of cancer.	TRUE	FALSE
5 Pain is a late cancer symptom.	TRUE	FALSE
6 Cancer can strike anyone at any age.	TRUE	FALSE
7 A biopsy (examination of suspected tissue removed from the body) is the only method of proving whether cancer is present.	TRUE	FALSE
8 Surgery or irradiation, or both, are the only means of curing cancer.	TRUE	FALSE
9 An annual health checkup is one of the most effective weapons against cancer.	TRUE	FALSE
10 Over one million Americans are alive today, cured of cancer.	TRUE	FALSE

SCORING: 10: Excellent
6 to 9: Fair
5 or less: Danger! For your own protection, learn more about cancer. Write to "Cancer" –c/o your local post office.

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continued from page 23

with details relating to stiffeners, direct wall furring, ceiling attachments, door bucks, floor attachments and for shafts and similar enclosures which can be plastered from one side only. Architects, engineers, contractors and specification writers in the construction and design fields should find the supplements valuable time savers. Also available is the Association's current issue of Metal Lath News, devoted to the subject of school fires. Illustrations and commentary deal with school buildings in which fire-resistant metal lath and plaster has been specified.

For free copies of this material, circle number 903 on the Reader Service Card.

Primer sealers. An eight-page booklet outlining the purpose of paint primer sealers, the three basic types available and their application to various surfaces, is now offered by William Zinsser & Co.

For a free copy of this booklet, circle number 872 on the Reader Service Card.

School supplies. Loose-leaf products of every description fill the latest 48-page, profusely illustrated catalog issued by Elbe File & Binder Co. The catalog offers new colors, materials and styles; new vinyl binders; new clipboards; and new folders.

For a free copy of this catalog, circle number 899 on the Reader Service Card.

Television. The magazine, TV Guide, has published a pamphlet outlining school uses of educational television.

For a free copy of this pamphlet, circle number 875 on the Reader Service Card.

Tile designs. New design treatments with large size tile used on interior walls are shown in full color in a new booklet being offered by American Olean Tile Co. A section which reproduces architectural renderings showing various installations gives examples of how the large ceramic tiles can be used in new ways to create decorative effects at moderate cost. Complete trim shape charts are included in the 16-page booklet.

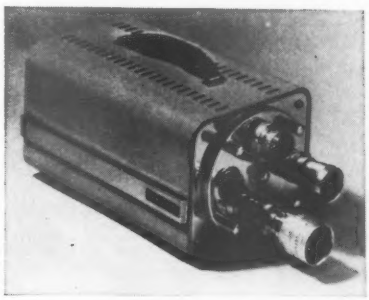
For a free copy of this booklet, circle number 887 on the Reader Service Card.

SM PRESS RELEASES

News from the business firms serving your schools

Direct-wire TV system

A low-priced, 16-pound, vidicon-type camera is the heart of a new, direct-wire TV system just introduced by Argus Cameras, a division of Sylvania Electric Products, Inc. Designed to bring closed-circuit TV within the scope of school budgets, the camera boasts self-contained controls and may be wired directly to any standard television receiver without the need for a costly console. It will transmit an image



on any channel from two to six. The camera can be mounted on any standard camera tripod, has a top-mounted carrying handle and can be serviced easily by any radio or television technician. Multi-camera installations can be set up without the need for additional amplification and adjustment is as simple as operating a television receiver.

For more information, circle number 846 on the Reader Service Card.

Four track tape recorder

Featuring four-track stereo and monaural record and playback for tape economy, three speeds—7½, 3¾ and 1⅞-inches per second—and simple piano key controls, the Norelco Continental "400" stereo record and playback tape recorder has just been announced by the High Fidelity Products Div. of the North American Philips Co., Inc.

It can be used to record stereo or monaural and to play back stereo or monaural tapes through the unit itself or through an external hi-fi system. Included in it are inputs for recording from microphone, tuners and phonograph, with facilities for mixing microphone with either. An output jack for monitoring with stereo headphones is also incorporated into the unit.

For more information, circle number 863 on the Reader Service Card.

Riding mower gathers cuttings

The only riding machine to bag cuttings as it mows, Toro Mfg. Co.'s Pony Rider can also be used to vacuum leaves in the fall. Collection bag and bagging chute are standard equipment on the new 25-inch rotary that joins the company's line of mowers ranging in size from 19- to 76-inch machines. Its features: 4.5 horsepower four-cycle engine, mechanical-type governor and oil pump lubricating system. The simple controls include one lever for the two speeds forward and one reverse, brake pedal and separate clutch pedal. The short turning radius makes for close trimming and the cutting blade can be "frozen" automatically in transport position.

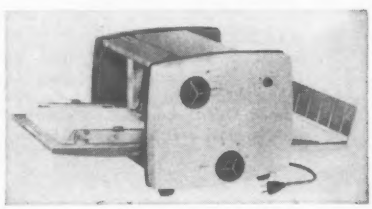
For more information, circle number 845 on the Reader Service Card.

Compact duplicator

Designed so that the feed and receiving trays fold to an attractive, self-contained, dust-proof case, Bohn Duplicator Co.'s new spirit duplicator, the BDC Rex-Rotary R-11, occupies less space than an office typewriter.

All operating controls are interlinked. A patented wick prevents flooding even on the narrowest master and the master clamp itself is completely automatic, one control separates all rollers and, at the same time, shuts off the fluid supply.

A single sheet feed cycle is provided, and for systems applications the operator can work from the front while seated. Additional features of the R-11



include: nylon gears requiring no lubrication, perfect registration, raise and lower copy control and a reset copy counter. It is available in both electric and hand operated models and is guaranteed for one year.

For more information, circle number 850 on the Reader Service Card.

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Folding arm chairs

Comfortable, eye-pleasing portable seating is provided in the new line of folding arm chairs—created by Clarin Mfg. Co.—shown (*see picture*) installed in the board room of the Downey Union Schools, Downey, Calif. Ideally suited for public meetings and faculty conferences, the chairs can be set up quickly and effortlessly and as speedily folded—the arms fold with the rest of the chair to a compact three inches—and stored away. Available in 60 decorator combinations of fabric and frame colors, super grade Naugahyde nylon and gros point, the chairs are stamped with a 10-year guarantee. Clarin's new folding tablet arm chairs are equally comfortable. The tablet arms slide easily into place for note-taking, glide easily out of the way when not in use. These, too, come in a variety of upholstery and frame colors.

For more information, circle number 865 on the Reader Service Card.

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Dish and glass rack dolly

A medium duty, completely smooth dish and glass rack dolly, made of ⅛-inch formed sheet steel and plated to give a rust-resistant finish, has been announced by Wilder Mfg. Co., Inc. The standard 2½-inch diameter steel or rubber swivel casters are recessed to prevent hooking with other dollies. Inside dimensions are 20¼-inches by 20¼-inches.

Also available is a new sheet pan dolly, with the same features as those described above, except that its inside dimensions are 18¼-inches by 26¼-inches.

For more information, circle number 848 on the Reader Service Card.

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Cafeteria service

A white floral pattern against a band of rich color—coral, aqua or gray—highlights the Decor line offered by Corning Glass Works. A universal stacking saucer, with a base that fits snugly into the top of a coffee cup for secure stacking, is also featured. The saucer is offered as a single, standard shape, replacing two other saucers in the company's institutional line.

For more information, circle number 854 on the Reader Service Card.

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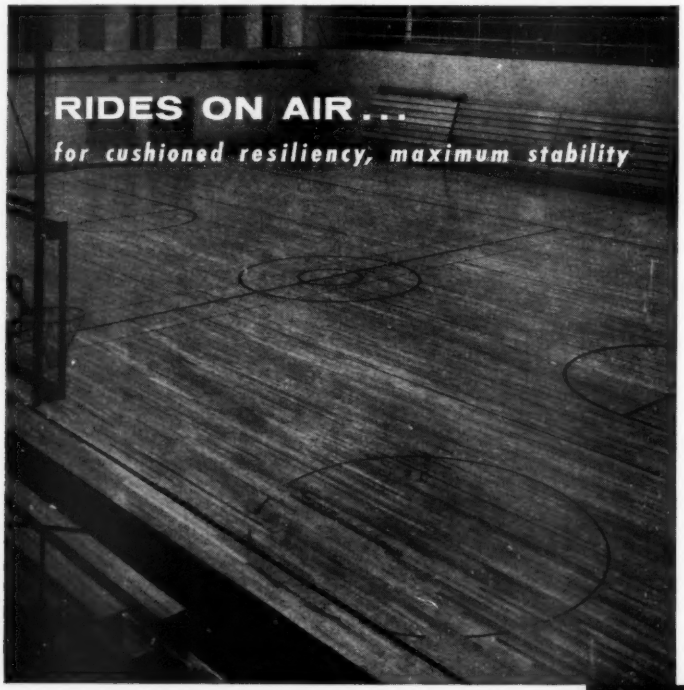
Multi-language instruction

Individual instruction in as many as 10 foreign languages to students in the same classroom is now possible with



18,250 ft. 33/32" PermaCushion floor. Dri-Vac treated, in Physical Education Building, Godwin Heights High School, Grand Rapids, Mich. Archt: Louis C. Kingscott & Assoc., Kalamazoo. G.C.: Beckering Constr. Co., Grand Rapids. Installer: Bauer-Foster Floors, Inc., Detroit.

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- rests on air-channeled G.R.S. pads for permanent resiliency and prevention of moisture transmission.
- is not secured to slab or structure allowing natural expansion and contraction, maximum dimensional stability.
- assuring a warm, dry subfloor through bellows-like air-circulating actions of pads.
- keeping natural beauty, durability and smooth surface for generations with its Northern Hard Maple flooring.

Write for literature and name of your nearest installer to Robbins Flooring Co., Reed City, Mich., Attn: Dept. SM-1159.

*T.M. Reg. U.S. Pat. Off.

ROBBINS FLOORING COMPANY
Reed City and Ishpeming, Michigan
WORLD'S LARGEST MANUFACTURER OF NORTHERN HARD MAPLE FLOORS

(Circle number 749 for more information)

the control console that has been added to the RCA language laboratory system. The teacher can tune in on an individual student in his sound booth, monitor his work and offer advice without disturbing other members of the class. The new console broadens the scope of the RCA system which features a key, transistorized amplifier —only three by eight inches—that permits selection of up to 10 language channels.

For more information, circle number 856 on the Reader Service Card.

■ ■ ■

Floor anchor

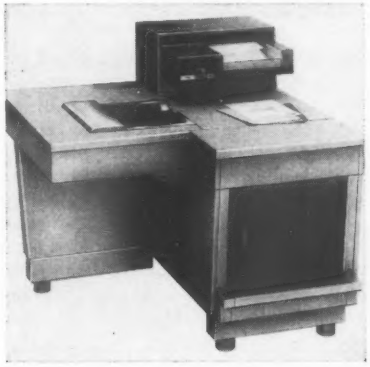
A streamlined floor anchor has been introduced by Porter Athletic Equipment Co. for gymnasium equipment installations. Less than an inch in diameter at floor level, the anchor is easily installed in wood, concrete or tile floors. No special tools are required for either wood or concrete installations. New ball-joint attachment fittings designed to fit the anchor have been designed for horizontal bars and game standards. Field tests indicate that a single unit, mounted in a wood floor, will hold loads of two tons, more than twice the holding strength of standard floor plates.

For more information, circle number 874 on the Reader Service Card.

■ ■ ■

Fully automatic copier

A machine that will copy any color, even light yellow, has just been introduced by Haloid Xerox, Inc. High quality copies of documents, line work, newspapers—even carbons and translucent materials—can be made with the Xerox 914 copier in 30 seconds, with succeeding copies produced at the rate of six per minute. The number of copies desired is obtained simply by dialing and pushing a button. There are no chemicals involved in the process so copies emerge curl-free.



For more information, circle number 852 on the Reader Service Card.

■ ■ ■

Do-it-yourself telephones

A fully automatic dial telephone system for internal communication can now be installed at less cost than most intercoms, according to Dukane Corp. The automatic, lightweight switchboard, smaller than a portable typewriter case, is the heart of the new system. Two to 10 lines are possible and provision can be made for loudspeaker paging applications. Telephones can easily be hooked up to the switchboard by attaching two wires from the instrument to the indicated numbered connecting strip within the control unit. To reach any other phone in the system—all completely separate

FREE BROCHURE TELLS LATEST DEVELOPMENTS OF TAPE TEACHING SYSTEMS

Many modern educators believe that the answer to the overcrowded classroom and teacher shortage lies in revolutionary electronic tape teaching systems.

Everyone in the field of education should read this brochure. It tells the story of tape teaching — how it began and where it is being used. It shows the startling results of Metropolitan Tests of students "taught by tape," compared to students taught by conventional methods.

The free brochure also shows Modern Electronics MECOTAPE TEACHING SYSTEMS — how they work and how they fit into any size classroom. Even more important, it shows the development of MECOTAPE through years of classroom and laboratory research that makes MECOTAPE the pioneering leader in the field of Tape Teaching Systems.

The brochure is FREE. Just fill out the coupon and mail it today.

MECOTAPE
TEACHING SYSTEMS

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Name _____

Occupation _____

Address _____

City & State _____

MODERN ELECTRONICS/2000 Broadway/Department SM/San Antonio, Texas

(Circle number 740 for more information)

from outside telephone service—the user simply dials a single digit on his phone.

For more information, circle number 878 on the Reader Service Card.

■ ■ ■

Simplified line drawing

An all-plastic 12-inch ruler for drawing absolutely parallel horizontal and vertical lines quickly without lifting the ruler from paper is now available from Rol-Ruler. The accurate built-in rollers allow smooth, easy movement up or down when drawing lines, while a spiral index window automatically measures distances between horizontal lines as close as 1/16-inch.

For more information, circle number 857 on the Reader Service Card.

■ ■ ■

"Convertible" bucket

One bucket for small mopping jobs, a twin-tank unit for larger ones, and both light, compact and easy to maneuver—these are the features of the Floor-Knight, 16-quart "convertible" bucket by Geerpres. Also available in 32- and 44-quart sizes, the single buckets are coupled through grommets in the rubber bumper to make a dual-duty mopping outfit. The bumper is non-marking, preventing smudges on walls and scratches on furniture. The buckets are mounted on durable aluminum chassis with ball-bearing rubber-wheeled casters.

For more information, circle number 859 on the Reader Service Card.

Boiler reconditioners

A boiler rust and sludge remover and a leak sealer have been announced by J. A. Sexauer Mfg. Co. Called Heat-Pep Cleaner and Heat-Pep Sealing Compound, the products are available in liquid and powder forms. The cleaner's action—physical rather than chemical—removes corrosion-caused rust and sludge in old boilers and core sand, oil and dirt common to new ones while coating boiler walls to prevent further accumulations. The sealing compound mixes readily with boiler water, seeks out leaks and seals them immediately by bonding permanently to the boiler part affected.

For more information, circle number 871 on the Reader Service Card.

■ ■ ■

Novel title slides

The only limit to the kind and variety of titles or messages that can be projected with Graflex, Inc.'s, new title slide is the imagination of the one preparing the slide lecture. Anyone who can write, draw, trace or print can now liven projected sessions immedi-

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4301 S. Fitzhugh Ave. Dallas 10, Texas

(Circle number 715 for more information)

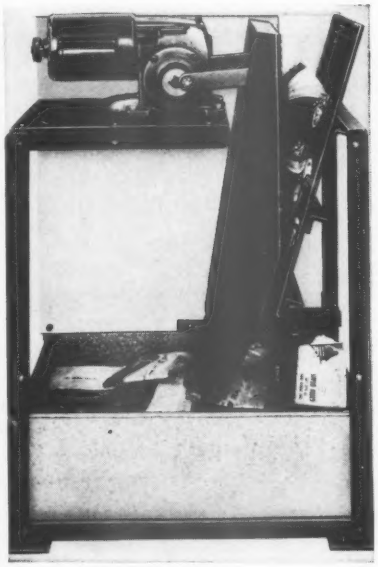
ately without the delay necessitated by photographing and developing new titles. Errors can be quickly corrected by erasing and the title slides can be used over and over, with varying messages, in any 35mm projector.

For more information, circle number 849 on the Reader Service Card.

■ ■ ■

Can and bottle crusher

Rubbish removal expense can now be changed into scrap sale profit with the Crush Master, a new electric can and bottle crusher manufactured by Modern Metal Products Co. Available



in both stainless steel and baked enamel, the unit crushes cans of all sizes and shapes up to five quarts and bottles and jugs up to one gallon in a matter of seconds. The self-feeding chute takes several cans at one time and operates with a self-closing door. Weather-proofed for inside or outdoor use, the machine holds up to approximately 60 pounds of crushed cans, can be cleaned with a simple hosing. Cutaway view (*see picture*) shows the ¾ H. P. gearmotor, heavy crushing jaws and large can receptacle.

For more information, circle number 864 on the Reader Service Card.

■ ■ ■

Pusher-bus chassis

Expressly designed for school bus use, the new Reo pusher transit bus chassis offers improved maneuverability over conventional buses. It is so balanced that one-third of the weight rests on the front axle, and two-thirds on the rear. This, plus the shorter wheelbase of the forward control, equips the pusher for turning sharp corners and for easier handling.

Other features: front axle placement permits the door to be located ahead of the front wheel for better driver control of entrances and exits, the absence of an engine cover makes it easy for the driver to get in or out and frame height is low permitting easier entrance and exit by passengers.

The three models available are classified by rear axle capacities. Passenger capacities depend upon the wheelbase. 170-inch for 61 passengers, 197-inch for 67 and 225-inch for 73. A variety of transmissions and power plants are offered; automatic transmission, power steering and extra heavy brakes are optional.

For more information, circle number 867 on the Reader Service Card.

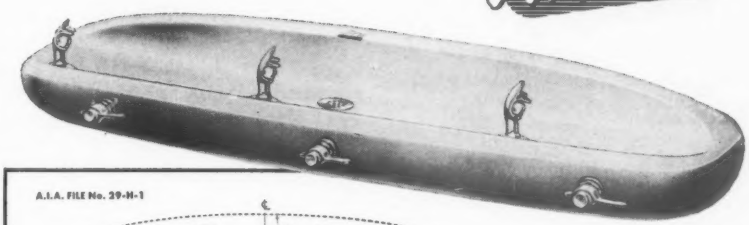
■ ■ ■

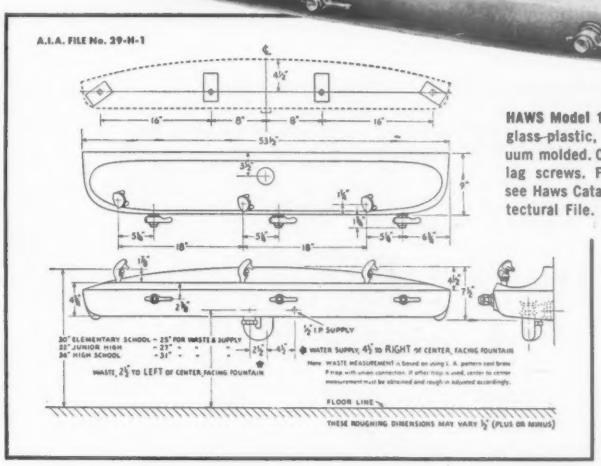
Science slides

Subjects included in the general science series of slides announced by Creative Visuals Co. include. anatomy, astronomy, the atom, botany, electrici-

MOLDED IN FIBERGLASS

in choice of **COLORS** HAWS





HAWS Model 10Y: reinforced fiberglass-plastic, heat laminated, vacuum molded. Concealed hanger and lag screws. For complete details see Haws Catalog in Sweet's Architectural File.

In fiberglass, in color . . . and a design as fresh as the latest architectural trends! HAWS Model 10Y brings welcome beauty and color appeal to school and institutional environments. It's vacuum molded in tough, lightweight, acid resisting fiberglass —with smooth lines and 100% concealed trim. HAWS vandal proof, shielded bubblers are anti-squirt, with HAWS Flow Controls. Choose from five decorator colors and white at no extra cost! Write for the complete specs on Model 10Y (and also Model 10X, the same fine design in enameled iron).

See HAWS Catalog in Sweets Architectural File for data on the entire Haws line.

HAWS DRINKING FAUCET COMPANY

1441 FOURTH STREET • BERKELEY 10, CALIFORNIA

(Circle number 727 for more information)

ty and meteorology. The series consists of 50 basic slides with more than 100 progressive overlays. The slides, processed on eight-inch by 10-inch color-impregnated plastic sheets for overhead projection, permit the lecturer to face his students in an undarkened classroom. In addition, a greater number of students can be taught more effectively with less classroom preparation and at less cost than other methods.

For more information, circle number 876 on the Reader Service Card.

■ ■ ■

Modular portable stages

Development of a line of portable stages and chair stands designed for flexibility and space conservation, has been announced by Sico Mfg. Co. Built to grandstand safety codes, the staging is offered in modular sections —all interchangeable and capable of being locked together. The new mobile staging concept incorporates a unitized steel framework coupled with folding portability. When folded, each stage stands on four-inch rubber casters; when in use each platform rests on direct-to-floor load bearing columns— not the casters.

For more information, circle number 869 on the Reader Service Card.

■ ■ ■

Shop practice film strips

A new set of nine film strips, "Hammers, Screw Drivers, Nails and Screws," is available from the Stanley Tools Division of The Stanley Works. Totalling 149 frames, this fifth offering in a series is designed to help shop teachers supplement demonstrations. Film strips are 35mm safety films, in black and white, and come packed individually with a manual of suggested questions for testing.

For more information, circle number 870 on the Reader Service Card.

■ ■ ■

Hydraulic inside door closer

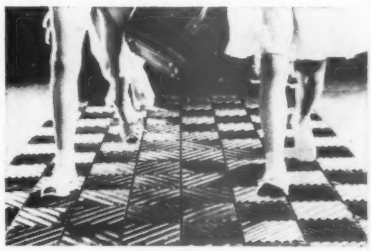
An economical inside door closer available in two models to fit most doors has been introduced by T & R Service and Mfg. Co. Easily installed in minutes with only a screwdriver, Hydra-Close never needs oiling or adjusting, operates quietly and positively and can be used as a door check to hold door open at 90 degrees. Available in flush-mounted or concealed models, a brass-finished hood completely conceals the mechanism for inconspicuous inside installation.

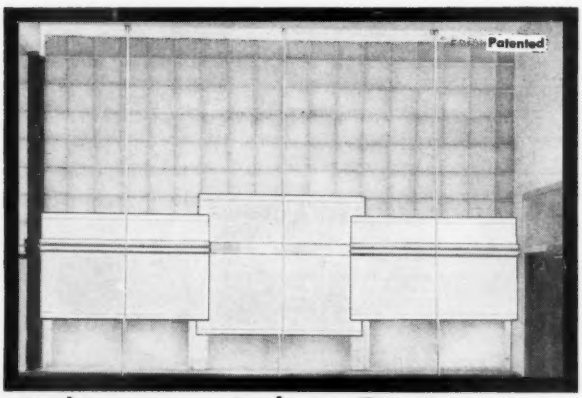
For more information, circle number 855 on the Reader Service Card.

■ ■ ■

Shoe cleaner floor matting

A unique checkerboard pattern and outstanding wear resistance characterize Akro Traffic-Master black floor matting made by Buxbaum Co. from





Window Wall Brilliance

Improved daylight control for combination clear glass — glass block windows starts with proper shading. Draper New Way Overlapping Shades are designed especially for controlling "walls of light," and at the same time giving maximum efficiency to window wall brilliance. Draper's exclusive bracket-shield eliminates annoying rays of light. Both upper and lower roller shades have independent action. Each shade can be adjusted to any desired position.

Write today for your copy of NEW WAY Shade Unit Folder.

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(Circle number 719 for more information)

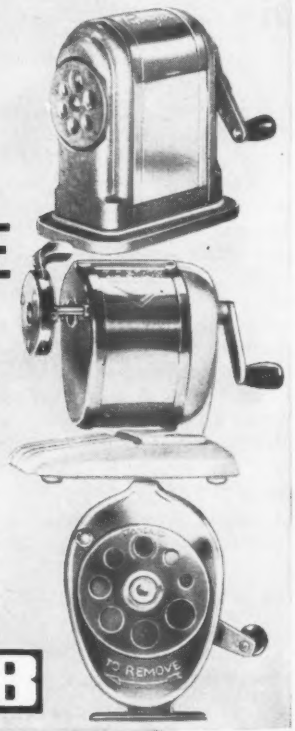
BOSTON STEEL GEARS MAKE A DIFFERENCE

EFFICIENCY
25% more cutting edges give faster, cleaner points.

DURABILITY.
Gears of hardened steel for longer-lasting service life.

STRENGTH
Rugged, heavy-duty frame for balance and long life.

CLEANLINESS
No fall-out. Nickel plated receptacle locks shut.



Write for information, prices, to Dept. SM

C. HOWARD HUNT PEN CO., CAMDEN 1, NEW JERSEY

(Circle number 730 for more information)

Ameripol Micro-Black rubber, a ready-mixed SBR black masterbatch developed by Goodrich-Gulf Chemicals, Inc. The matting features deeply molded, ribbed six-inch squares that trap dirt and mud at building entrances by acting the part of built-in squeegees for cleaning shoes and boots.

For more information, circle number 858 on the Reader Service Card.

■ ■ ■

Speedier tile installation

A new type of mounted glazed tile for faster, easier, more economical installation is available from American Olean Tile Co., Inc. Called Master-Set, the tiles come mounted on a specially developed paper-thin sheet permitting the placement of 12 tiles at one time. The sheet holds tiles rigidly in place without sagging or stretching, fits snugly on walls with an unusually tight bond and conforms to wall contours. Individual tiles or sections can be cut or snapped from the sheet easily and quickly and complete sheets can go from carton to wall in one motion with no soaking needed. The tile, on sheets, is available in all standard glazed tile sizes, in regular and crystalline glazes and in some of the company's exclusive scored tile designs.

For more information, circle number 860 on the Reader Service Card.

■ ■ ■

Folding table tennis unit

The table tennis line of Brinktun, Inc., now includes a professional Fold-n-Roll model that folds and locks into a closed position in seconds and opens in one easy motion. Designed to withstand heavy duty school use, the top is ¾-inch plyblend with a plasticized playing surface. The frame is of 1½-inch by one-inch heavy angle iron and the one-inch heavy duty tubular understructure is supported by four-roller-bearing, three-inch casters.

For more information, circle number 861 on the Reader Service Card.

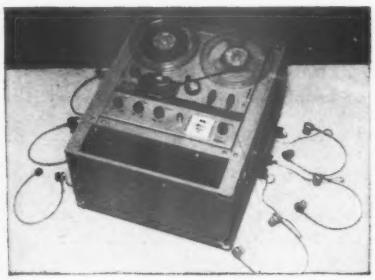
■ ■ ■

Mineral fiber formboard

A new mineral fiber formboard, with a finished under surface, has been announced by United States Gypsum Co. Faced on the room side with a sheet of durable plastic, the new Pyrotone makes an attractively finished ceiling when left exposed. Its high acoustical absorption and high light reflectance create excellent working or playing conditions at floor level.

The formboard will support a two-inch poured gypsum roof deck with minimum deflection. Neither the facing nor the mineral fiber core are affected by moisture or mildew.

For more information, circle number 844 on the Reader Service Card.



The **califone**
MASTER Model 75-T
TAPE RECORDER

The range of capabilities offered by the Califone MASTER Tape Recorder Model 75-T far exceeds any other recorder made today for the school field. Following are outstanding features of this unique model—MAKES SUPERIOR MASTER TAPES ... PLAYS MASTER TAPES THROUGH HEADPHONES FOR UP TO 10 STUDENTS ... PLAYS MASTER TAPES THROUGH SPEAKER FOR UP TO 500 PERSONS ... PROVIDES MASTER FOR GROUP OF UP TO 10 "SLAVE" RECORDERS.

The Califone MASTER was designed to provide ease and simplicity so that master tapes can be made in the classroom or teacher's study. Once made, the master tape may be played for up to 10 students for silent group listening through the 10 headphone output jacks, each outlet having its own volume control.

For use in full classroom or auditorium, the MASTER's 9-watt amplifier and heavy duty speaker will supply matchless sound reproduction of master tapes for up to 500 persons.

Excellent for "audio-passive" language study, the Califone MASTER may also be used as the "master" recorder for a complete portable language laboratory in conjunction with Califone's booth-type, portable tape recorder, the SOLITAIRE Model 72-T.

School Net Price of the MASTER Model 75-T is $349.50. For further information, write Dept. SM-2.

califone CORPORATION ● 1020 NORTH LA BREA AVENUE HOLLYWOOD 38, CALIFORNIA

(Circle number 711 for more information)

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Managing a school district is a team operation. All members of that team need to share a professional management journal. Why not have SCHOOL MANAGEMENT sent to each person's home?

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Attach additional names to separate sheet

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In addition to providing you with the finest, *safest* power tools your students can use, Delta offers you the most *practical* school shop teaching "tools" available from any source. Layouts for new or expanding school shops, guides for specifying tools, instruction manuals, project ideas—these and many more are available *free*, or at special discount, to school shop administrators and instructors. And every Delta tool is backed by unequalled dealer cooperation and service, and by a staff of Delta School Representatives devoted exclusively to work in industrial arts and vocational education. That's why *more than 72% of all U. S. school shops teach with Delta Power Tools.*

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another fine product by
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ADVERTISERS

This Reader Service Section is provided to help you obtain information on advertisements in this issue. Simply find the appropriate key numbers in the listing and circle the corresponding numbers on one of the cards bound in behind this page.

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For more information on any advertisement, fill out the card opposite, circle the appropriate key numbers, detach, and mail. We pay the postage. Please use card number 1 first. Key numbers appear under most advertisements.

New Way to Stop Faucet Leaks!

★ 9-in-10 washers are fastened with TOO LONG or SHORT SCREWS thus loosen and destroy themselves. Leaks quickly follow!

34 YEARS OF RESEARCH REVEALS NEW SOLUTION

★ New, patented 'Sexauer' SELF-LOCK screws have imbedded expanding NYLON PLUG. They lock at required depth AUTOMATICALLY, hold washers firmly! Made of MONEL, they are rustproof, non-corroding. Heads can't twist off. Screw slots can't distort.

★ NEW, improved 'Sexauer' EASY-TITE faucet washers are made of super-tough, pliable du Pont compound (not rubber or fibre). Reinforced, like a tire, with a vulcanized layer of Fiberglas, they resist distortion and splitting from shut-off grind and squeeze.

★ Faucet leaks repaired with 'Sexauer' EASY-TITE washers and SELF-LOCK screws outlast ordinary repairs "6-to-1"!

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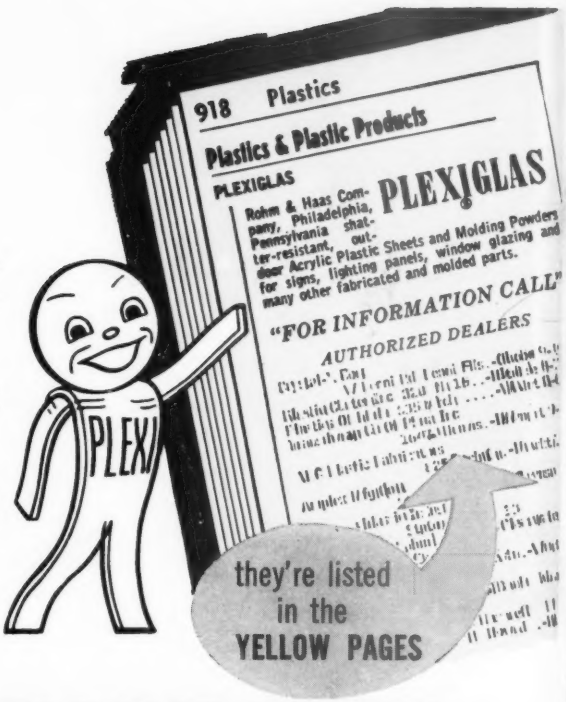
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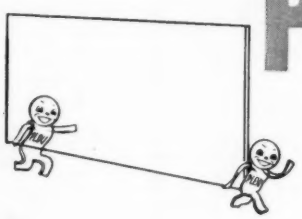

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